THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND THE MIND." SERIES.

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THE CULTIVATOR

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THE CULTIVATOR.

MONTHLY NOTICES

COMMUNICATIONS have been received since our last, from S. Tillotson, Rho, W. Forbes, P. Bellman, Quere, (shall be answered hereafter,) M. Y. Tilden, A. L. Bingham, Alex. M'Donald, Index, C. Mock, A Hearer, J. J. T., G. B. Smith, J. M. Harlan, A Practical Farmer, Brutus, Georgius, L. F. B., D. C. Collins, J. D. F., T. P. of Bermuda, H. C. C. M. D., J. Hartman, H. R. Robey, C. Rich.

☞ The second Part of Mr. COLMAN'S "European Agriculture," will be issued early in this month.

D. W. B., Greenwood, Va.—Your letter of 12th March last, got accidentally laid away with business letters, or the information asked for, so far as we could have furnished it, would have been given.

☞ Information is wanted at this office, of *John W. Robbins*, who sent us a list of subscribers to the Cultivator, from Dumfries, Va., in 1840. Any one acquainted with his place of residence, will much oblige us by communicating it.

POLAND FOWLS.—A gentleman in Georgia wishes to know where he can obtain Poland fowls, with pure black bodies and white crests. Any person having such for sale, would do well to advertise them in the Cultivator. Our western friends can obtain these as well as several other varieties, we presume, of our correspondent, Mr. H. A. PARSONS, of Buffalo, to whose communication in this paper, the reader is referred.

THE LATE MR. GROVE'S SHEEP.—We trust it will not be forgotten that the sale of Mr. Grove's Saxony sheep, will take place at his late residence on the 15th inst. The opportunity here afforded of purchasing some of the most valuable sheep ever in this country, will be likely to bring many to the sale.

TALL FLAX.—Mr. Elisha Barlow, of Amenia, Dutchess county, N. Y., has presented us with a specimen of flax raised by him this season, which is five feet in length, exclusive of root. We have never seen any before so tall. Has any body?

EARLY CORN.—Mr. John Townsend, has presented us with a fine sample of corn grown on his farm near this city. It is similar to the Dutton in appearance, and was ripe enough to harvest the latter part of August.

THE STATE FAIR.—Believing that such of our readers as were unable to attend the State Fair, will wish to see a full account of it, we have occupied several pages of this paper with its details, illustrated with two beautiful engravings. A complete list of the Premiums awarded, is also given, commencing on page 325. A portrait of Mr. Vail's bull "Meteor," to which was awarded the first prize for the best bull over three years old, was published in our current volume, p. 17. A portrait of Mr. Crosby's bull "Osceola," which received the first prize for two year old bulls, was published in our volume for 1843, page 149.

NORMAN HORSES.—We invite particular attention to the advertisement of Mr. Harris, for the sale of his Norman horses. His imported horse "Diligence," we have often heard commended by those who are considered good judges of horses. His portrait, which we believe is very correct, will be found on page 193 of the ninth volume of the Cultivator.

MERINO SHEEP.—We have received from Mr. COLLINS, a reply to Col. RANDALL'S challenge to show sheep and wool at the State Fair, published in our last. As the occasion has passed by, and the reply, and a rejoinder also from Col. R., have already appeared in the "Spirit of the Times," we do not deem it necessary to publish the reply at length. Mr. C. declines the challenge, and says—"I neither give nor accept challenges in relation to my animals, nor make bets upon them." He also says:—"Many gentlemen, among whom were distinguished growers of fine wool, on seeing my imported merino ram, called *Grandee*, and after critically inspecting his fine and *unusually thick*, heavy fleece, intimated to me a very strong desire that he should be exhibited this autumn, at the Poughkeepsie Show. I had accordingly determined to gratify the public curiosity, by sending old *Grandee* to the said Show, wearing his full fleece, which, with that object in view, I had at shearing time this season, left unshorn. The ram would thus have been shown at Poughkeepsie, but for an unfortunate accident, which about two or three months since, destroyed him, when in fine condition, and in the very fullness of his health and strength. Thus, to my very great disappointment and mortification, ended the life of a most valuable and useful animal. He was indeed, a magnificent ram; but there is, of course, no use in indulging vain regrets on account of his loss."

CULTURE OF THE OLIVE IN MISSISSIPPI.—Mr. DE BUYS of Biloxi, in a recent letter to the Editors of the Cultivator, says—"In regard to the cultivation of the Olive,—of course on the smallest scale,—I state that I planted for ten years, in the month of January, in our poor coast ground, Olive cuttings, from which, without farther trouble, after seven years, (the common fruit bringing time of this tree,) I gather in general from every tree, a bushel of, in no part of the earth, surpassable Olives."

CROPS IN CHESTER CO. PA.—Extract of a letter from J. M. HARLAN, Esq., to the Cultivator, dated July 25th: "The crops that have been harvested are nearly all good here—hay, wheat, oats, &c.; though wheat was attacked I believe pretty generally in some degree with the fly. Corn and flax have a good appearance, though we are at present suffering from drouth. Potatoes we hope, will be better than last year. Apples and fruit in general are

plenty, though pears have failed. I think we have had less thunder and lightning than in any preceding year within my remembrance. We had two days ago a fine rain of three or four hours, without any of the usual symptoms of thunder and lightning, though the weather is sufficiently warm."

WHEAT CROP OF VERMONT.—Mr. Jewett gave it as his opinion, in a communication in our last paper, that the wheat crop of the present year was equal to the supply of its people for the year. A correspondent at Castleton, "L. F. B.," says:—"I have not the least hesitation in saying there was not sufficient wheat grown the past season to supply one-fourth part of the people of Vermont. The large agricultural county of Rutland, from what I have seen and heard, will not raise enough wheat to supply two of its largest towns. The State is truly a wool, cattle, and horse growing State, and marble, iron and timber, also add much to its resources for exportation. I wish for the good of the State and for 'home protection,' your correspondent had *guessed* right."

MERINO SHEEP.—Mr. A. L. Bingham, of Cornwall, Vt., informs us that he purchased a flock of Merino sheep in 1838, which "sheared that year, 3 lbs. 3 oz. of well washed wool—the second year, 3 lbs. 10 oz.—the third year, 3 lbs. 14 oz.—the fourth year, 4 lbs. 2 oz.—the fifth year, 4 lbs. 4 oz.—the sixth, or last year, 4 lbs. 6 oz.—being an increase of one pound three ounces, and this, by no better keeping than they had before, for they were kept well on hay before, and no better since." He thinks "the weight has been put on entirely by the crosses" he has made. The crosses have been with bucks from the flock, (said to be "full blooded Paular,") of Merrill Bingham. The increase in the weight of fleece, is certainly a matter of no trifling consideration, though Mr. Bingham has not informed us whether its *fineness* has been preserved. Mr. Bingham also informs us that he has purchased twenty-eight ewes of a flock which he says is "full blooded Paular, if there is any in the country;" they were purchased of the importer by Messrs. Buffum & Smith, of Nantucket. "These ewes," says Mr. B. "averaged me of well washed wool, a mere trifle under five pounds per head." Mr. Bingham also informs us that he purchased a buck of this flock for which he "paid $80, which gave this year 10 lbs. 7 oz. of wool, well washed."

GRAPE VINES.—Mr. Harlan of Chester Co. Pa., in a late letter, says:—"The young and inexperienced vine dresser, might suppose from the voluminous directions to propagate the vine, that choice wine grape vines would not bear to any advantage without being cut and carved in a particular manner, and divested of their native shape. Now if this sentiment is imbibed, I believe it is an entire mistake. I maintain that they will bear at full natural length. I had last year, during the prevalence of the noted frost in June, a seedling vine which grew on an apple tree in the corner of a garden, where hung large bunches of grapes, protected from the frost by the foliage of the tree, thinned out in the heart of the head. This vine exceeded all others in bearing, which were pruned in the usual manner, there being none of consequence on those exposed to the frost. I may add there is a good crop on it the present year."

EXPERIMENT.—A gentleman cultivated two hills of cucumbers, each having the same number of plants, under precisely the same circumstances, excepting in the following particular, viz: the ground around one hill was hoed every day, (Sundays excepted,) as long as the state of the vines would admit—the other was hoed just often enough to keep down the weeds, but no more. The hill which was hoed every day, produced more than twice the quantity of cucumbers that the other did. Who can give the "why and because?"

CASTRATION.—Mr. J. J. REED, of Moravia, Cayuga Co. N. Y., says,—"The method of castration I approve of as being most humane, is called *turning*. The beast is cast, his legs made fast, the hind ones drawn as far forward as convenient. The operator then takes hold of the sack at the lower end with one hand, and with the other commences shoving the testicles into the belly. As soon as they are completely broken loose from the sack, he shoves one into the belly, leaving the other in the sack; then taking hold of the testicle, he turns the upper end down, and commences shoving the end which is then up, around the cord, until it feels as hard as a stick would in the same place. He then shoves it into the belly, (taking care that it does not turn back,) and takes the other down and serves it in the same manner, shoving them both as far up as they can be. He then holds fast the sack, while another ties a stout string around close to the belly. The string is left on about ten days; if it does not then drop off, cut it off, and all further trouble is over. The advantages of this mode of castration are, if bulls, and they are wanted for a team, it will not injure them in the least to commence working them the next day after the operation is done—they will grow as thrifty as steers, only showing by their horns that they are stags—it does not make them slow, and they are less inclined for cows than when altered by any other means."

A HINT.—Don't suffer your revolving hay-rake, and your wagon rack, and hand rakes, and whatever else you have used in the haying and harvesting just finished, to lie out in the fields exposed to the weather, but see them well housed for another season. The weather destroys more tools than hard work, with some farmers; and more valuable time is lost hunting up and repairing lost implements, than their original cost.

FROST.—On the morning of Sept. 5th, there was a slight frost on the plains near Schenectady. We also learn that there was frost in the eastern part of Mass., on the morning of the 5th, 6th and 7th of Sept., but no injury of consequence was done. At Chicago, Ill., we learn there was a slight frost about the 10th of August.

COST OF FENCING.—Mr. Biddle, in an address before the Philadelphia Ag. Society in 1842, makes some calculations as to the cost of fencing, which will surprise those who have paid little attention to the subject. He estimates the expense of farm fences in Pennsylvania, and gives the data upon which his calculations are based, at $105,600,000. He thinks that the interest on this outlay, and the annual wear and tear of fences, is equal to an annual tax of $10,000,000, upon the farmers of that State.

MORTALITY AMONG SYCAMORES, OR BUTTON-WOOD.—The destruction of sycamores which has for several years been complained of in Massachusetts and some of the other eastern States, begins to be seen here. We have noticed several trees along the river, and some in other places, which will hardly survive the season. We are not aware that the cause of this destruction has been yet fully ascertained. Some suppose it to be an *epidemic*, which commencing (as did the cholera,) at the east, is sweeping over the country. Others alledge that the cause of death is a minute insect, which corrupts the sap. Mr. R. L. PELL, thinks (as we see by the Farmer & Mechanic,) that the severe frosts of the last three winters have occasioned the trouble.

WHITE NATIVE STRAWBERRY.—A. Goodwin, Ashfield Mass., describes in the Mass. Plowman, a kind of strawberry, which he thinks is a native of the Berkshire hills. He says, "It is larger than the common field strawberry, very hardy, and yields a great quantity of fruit, producing in succession three or four weeks. When ripe, it is of a yellowish white, contrasting beautifully with the red strawberry. It has a fine flavor, and when picked always cleaves from the hull. I have distributed them in Northampton and West Springfield, where they are much admired."

FLAX PULLER.—According to a correspondent of the New Genesee Farmer, they have in use in Seneca county in this State, a machine for pulling flax, which works well. It is manufactured by Wood & Hurd of Waterloo, who have had several machines in operation this season. They "charge one dollar an acre for pulling, they furnishing the machine and one hand. Two hands and a pair of horses will pull four to five acres a day. To use the machine effectually, it requires some practice; a green hand would probably make bad work, if he were not a mechanical genius. They charge for these machines, $90 each, with the right to use the same. It weighs about 700 pounds."

BANKS OF THE HUDSON.

About the beginning of last month, we made a hasty call at some of the fine places near the Hudson, in the counties of Orange and Dutchess. Our first stop was at Newburgh, where we visited the extensive nursery grounds of Messrs. A. J. and Charles Downing. These gentlemen have devoted much time and attention to the improvement and culture of fruits, and in return for their assiduous and long continued labors, have acquired a deserved and extensive reputation, which brings a ready demand for all articles in their line of business. Their principal object is rearing trees of the *choicest* kinds of apples, pears, peaches, cherries, plums, &c. Thirty acres are set to trees, and more healthy, thrifty, or handsome trees, we never saw. We noticed in some instances, the smaller trees were cultivated in alternate rows with sugar beets or potatoes—the latter increased the trouble of cultivation but little, though they afforded a crop which would probably more than defray the whole expense. The trees are cultivated chiefly by a cultivator, the construction of which we think, is in several respects superior to any other we have seen. The teeth are made of wrought iron, the *feet* being laid with steel, the shank shaped somewhat like a coulter to a plow. The feet nearly flat, and very sharp. It is on the *expanding* principle, and by means of a wheel, the depth is regulated, and the work is done in the best manner—even the hardest ground is well cut up and pulverized.

Messrs. Downing pay considerable attention to the rearing of *hedges*. The English thorns have not succeeded—they are not hardy enough—are subject to mildew, &c. Some of our native thorns do well—such as the *white*, and the *Buckthorn*.

One of the most ornamental and beautiful objects about the grounds, is a hedge or screen of the American *Arbor vitæ*, or white cedar. The trees were taken from a bluff near the river, only ten years ago, being then from a foot and a half to two feet high, set in the form desired, and have never been trained or touched at all, yet they are now from sixteen to eighteen feet high, forming a most magnificent screen, impenetrable to the sight, and as perfectly true and even as the sides of a wall.

Messrs. Downing practice a new mode of pruning peach trees; at least, it is new to us. It is cutting off half to two-thirds the new wood of the limbs, every autumn. The advantages are that the wood hardens better—the soft and tender twigs, not sufficiently matured to stand the winter, and which are besides most likely to be injured by the aphis or other insects, are taken away, by which the sap and wood of the remainder, are rendered more sound and healthy. The number of fruit buds for the succeeding year are increased, and there are plenty of leaves, by which the sap is more perfectly elaborated and the fruit made larger and higher flavored.

The soil of the nursery grounds, is mostly a gravelly or stony loam, rather moist. Neither the worm or curculio does much damage here. The solidity of the earth, makes it difficult for the insects to enter it for the purpose of undergoing transformation.

Every thing about the grounds of the Messrs. Downing, indicates the best taste and judgment, both as regards ornamental arrangement and profitable cultivation. There is an admirable neatness and order observable throughout, from the original design of the buildings and grounds, to the placing and training of every shrub and flower.

From the Messrs. Downing's, we called at Mr. Frederick J. Betts' place, situated about two miles from Newburgh. The farm is located on a very high swell of land, and commands a beautiful view of the river and surrounding country, embracing the Beacon mountains, on which were kept the beacon lights to direct the movements of the army and vessels on the river, during the revolutionary war.

Mr. Betts is engaged in improving his place by the building of new fences, planting trees, manuring the land, &c. He has made several trials with peat or swamp muck, and with a species of marl, which is found underlying the muck. The natural locality of the muck is some distance from the farm, but is to be had in any quantity, at thirty-seven and a half cents per cart load, *delivered*. Composts have been made by mixing two parts muck with one of stable manure, and on trial the compost has been found equal in all respects to the clear manure. The muck has also been used separately Spread on grass-ground, it has had the effect of largely increasing the yield of hay. The marl has not yet been tried so thoroughly as to be able to state its value particularly. It is known, however, that its qualities as a fertilizer are very considerable. It is composed mostly of small shells, mixed with a friable clay or loam. It looks and feels between the fingers, much like leached ashes mixed with lime. When laid immediately on the land after it is taken from its bed, it seems rather to injure than benefit vegetation; but after lying exposed to the rains and air for some time, the deleterious qualities seem to be dissipated, and it promotes the growth of all crops. It is often so with muck—when first dug, it is *sour*, as farmers express it, and it is not till this sourness is extracted, that it becomes good manure. It always contains more or less vegetable matters, which need only to be placed in a proper situation to aid the growth of plants. We are glad to see that farmers are beginning to appreciate its value.

We also called on Capt. Robinson, near Newburgh. We found him just on the point of leaving home, and did not examine his farm as we should have done, could he have been with us. We were shown some very good hogs, which we understood were imported from Lancashire, (Eng.) They were white, very thin-haired, long-bodied, and small-boned. They resembled hogs we have seen brought from England, under the name of *Graziers*.

From Newburgh we crossed the river to Fishkill, where we procured a carriage to convey us to Poughkeepsie. Our route lay over a diversified and well cultivated country, and a more delightful ride of eighteen miles, we have seldom enjoyed. The road was excellent—as hard as a pavement, but smooth as a board—just sufficiently undulating, to make the travel easy for the horses, and the change of motion agreeable to the passengers.

The next day we went up by carriage to Hyde Park. Here, also, we found many beautiful places and highly cultivated farms. We called on Mr. Fuller, who has a beautiful place of two hundred acres. The scenery from some of the points overlooking the river, is most charming. The river, with its graceful windings, its banks, now bluff and abrupt, now gradually and beautifully sloping, the green wood and the cultivated field, with lofty mountains rising in the distance, all mingle in a delightful picture.

After enjoying the hospitality of Mr. Fuller, he, together with his neighbor, Mr. Allen, (a most interesting and amiable man, who has a fine place near Mr. F., which we regret having no opportunity of examining,) accompanied us on a visit to the farm of Mr. R. L. Pell, at Pelham, Ulster county.

When we reached Mr. Pell's farm, the day was so far advanced that we had not time enough to make scarcely a beginning in the examination of the many objects of interest to be seen there, and we must therefore defer attempting particulars till another visit, which we intend making. Mr. Pell has made very great improvements during the four years he has occupied the farm. In approaching the farm, the first object which meets the attention of the stranger, is the neat stone wall with which it is enclosed. The avenue leading to the mansion, winds through green fields and among plantations of trees, in a very interesting manner. There is also a delightful carriage-road, leading in a picturesque manner through the vales and among the hills and groves of the farm. There are also not less than *five miles* of walks, as Mr. Pell informs us, leading over the most interesting points. As we pursue these labyrinthian walks, we find ourselves sometimes in the depths of a dark ravine, where the primitive forest and the original wilderness of all objects around, give an air of solitude which would lead us to imagine we were at a great distance from the abodes of man. Several of the ravines are crossed by foot-bridges, one of which is eighty feet in length. They are supported by wires, and were made on Mr.

P.'s farm at a small expense. They are painted with *coal tar*, an article which Mr. Pell has used extensively on his out-buildings, fences, &c. It is a cheap article, but seems to answer well for this purpose. We have seen it highly recommended in the English papers. Its cost is only $2,50 per barrel.

Mr. Pell is making numerous *fish-ponds*, which not only add much to the beauty of the extensive grounds, but may become actually sources of convenience and even profit, for Mr. P. is of the opinion that fish may be reared as cheaply per pound as *flesh*. There are some half dozen of these ponds, and more are being constructed. In one of these ponds we noticed a variety of fish—the gold-fish, pearl-fish, carp, &c., and were surprised at the evidence they exhibited of domestication. On throwing into the water some bran, they came at once so near that they could be readily examined; and Mr. Pell informed us that the ringing of a bell would instantly call them to the edge of the water. Such an instance of the susceptibility of *education* in the finny tribe we never before heard of. In other ponds, there are shad, (put in by way of experiment, to ascertain whether they can be *naturalized* to fresh water all the year,) sturgeon, trout, pickerel, perch, carp, &c. We shall look with interest to the results of Mr. P.'s experiments in rearing fish.

FOREIGN INTELLIGENCE.

THE WEATHER, CROPS, &C., IN ENGLAND.—The weather up to the 20th August, was quite showery, but since that date, the atmosphere has been uniformly fine, and the corn has been got in admirable order. The Mark Lane Express says—

"As to wheat, no complaint whatever exists; everywhere it is admitted that the acreable supply will be very abundant, with quality seldom or never surpassed. The straw of all grain, on the other hand—owing to the dry weather in the early part of the season—is very short. Oats are not likely to prove more than an average produce; but that of beans and peas will be quite equal to that of last year."

The importations of foreign live stock during the month of August, were 1,277 head of oxen and cows, in addition to which there were imported 100 sheep and 200 pigs. Some anxiety continues to be felt among the British farmers in regard to this importation, and it is said that in France, Germany, Holland, &c., great efforts are being made, by importations of the best breeds of cattle and sheep from England, as well as by the adoption of an improved system of husbandry, to enter into competition with the English farmer in his own markets. No success had attended the attempt to fatten foreign stock in England. In every instance where it has been attempted, the stock has been immediately seized with the epidemic, and speedily wasted away. Immense quantities of American beef, pork, cheese, &c., have been entered for consumption in London, Liverpool, &c., in, generally speaking, capital condition.

The hay crop is light—and owing to the drouth of the season, the cattle are generally not in as good order as might be wished.

In Scotland and Ireland, the harvest was being secured in good order.

Great preparations are being made for an extensive seeding of wheat for the next year's crop.

SHOW OF THE HIGHLAND AGRICULTURAL SOCIETY.—The annual show of this celebrated society, took place at Glasgow on the 8th of August. The weather was unfavorable from rain, but the number of people in attendance was, notwithstanding, great. The receipts for the sale of tickets for admission to the show-yard, amounted to no less than $7,389. The total number of lots was 1,404, among which were 222 Ayrshire cattle, 55 West Highland cattle, 160 horses, 118 sheep, 187 lots of butter, 83 lots of cheese, and 176 implements. The largest number ever entered before, was 1014, at Edinburgh, in 1842.

In the Ayrshire breed, there were shown 61 bulls and 99 cows, said to be a very good and even lot. The West Highlanders produced some remarkable specimens of their excellent breed; the short legs of the animals seemed scarcely able to carry their thick, round and heavy bodies. Some oxen of this breed, belonging to the Duke of Sutherland, travelled 350 miles to the show. The first premium for the best two oxen of any breed or cross, was awarded to Archibald Sterling, for a pair of West Highlanders.

MR. COLMAN.—We have been furnished with the following extract of a private letter from a gentleman now in Europe, to a friend in this country:—"I saw Mr. Colman in Southampton—thence he goes to the Glasgow meeting, and afterwards to Dublin. He is really in his element; and the very man perhaps of all others to collect the information you want; though really to a less searching character like myself, the great differences existing between the two countries would create much embarrassment in selecting a great deal that was applicable to American husbandry, when the difference in labor, the value of land, the climate, the prices of produce, and the capital is considered. He has been very well received; and the attentions of the great have been showered upon him. The halls and mansions and banquetings of the lords of the land are every day affairs with him, and must be a source of great satisfaction and gratification, both to him and to those friends who gave him letters of introduction. If Mr. Colman cannot glean from this rich harvest field, who can?"

DEFECT IN POTATOES.—The subject of the defect in potatoes, was discussed at a late meeting of agriculturists in Scotland. There was a very great diversity of opinion in relation to the cause—scarcely any of the speakers agreeing. The age of varieties, the nature of the soil, the state of the weather, cutting and *not* cutting the seed, were all mentioned as tending to produce the defect. Professor Johnston summed up the testimony, and as to a remedy, remarked that all appeared agreed that sound healthy seed, and a well pulverized and well drained soil, were the best preventives of the disease, and best guaranty for a good crop.

DYNAMOMETERS.—At a late meeting of the Council of the Royal Agricultural Society, several improved dynamometers, calculated to obviate the defects of those heretofore used, were presented and referred to a select committee for trial. One of them sent by Mr. Clyburn, it is said, would record a strain of draught up to twelve hundred. Its principle of action being self-recording, was different from that of other dynamometers, the box containing the instrument being supported on wheels, which communicated by their axle, a progressive revolution to the recording cylinder within it as the draught proceeded, and its registration was made continuously by the pencil moving over its ruled surface; the average amount of draught being obtained by inspection of the indication thus obtained by the momentary variations during any given time and space. The committee will report on the results of the trial of these implements at a future day.

IMPROVEMENT OF THE LABORING CLASSES IN ENGLAND.—His Royal Highness Prince Albert, has accepted the office of President of the Society for the Improvement of the condition of the Laboring Classes, which has been liberally patronized by the Queen and several of the nobility.

TENNESSEE AND ALABAMA.

We make the following extracts from a letter from our friend Col. ALEX. MCDONALD, of Eufalla, Alabama, dated Bedford county, Tennessee, Aug. 25.

"I set out in company with my family, on the 24th of June, from the town of Eufalla, Barbour county, Alabama, in latitude 31½, being what may be termed the cotton growing region. I have traveled over ten counties and parts of counties in Alabama, and six counties and parts of counties in Tennessee. That portion of our route through Alabama, was mostly confined to the new section of the State; we however saw many fine crops of cotton and corn, which are the principal crops in southern Alabama. These crops are reported as good the present year. It was however, too early to determine as to the extent of the cotton crop. We were struck with the large body of land lying in a state of nature in Alabama,

that could be taken up at the reduced price of $1,25 per acre. After traveling three hundred miles through Alabama, we crossed that bold and beautiful stream, the Tennessee. Here we found ourselves entering on the rich lands of the west, as well as the fine McAdam roads which are becoming universal in Tennessee, and are doing much for this interesting section. Of all the countries I have yet seen, middle Tennessee affords the finest home for the cultivator of the soil; although they cannot make money as fast as we of the south, still their soil is so rich, the climate so mild and pleasant, and the water so pure, that it appeared to me, that of all the happy men in this world, the Tennessee farmer could be the most happy, if he would only determine to own less land, study agriculture, improve his farm, have not only a snug and nice farm, but a snug and nice garden; and he would be encouraged to do this from the circumstance that he can better improve those valuable lands than in most sections of the south, for the reason that they will last for ages. The farmers of middle Tennessee are improving their lands with clover at this time. Provisions are so cheap here, that it costs almost nothing to live. I am at present paying $3 a week for myself, my wife, two servants, and two horses, and our fare is excellent. While in Nashville, I attended the markets to price the articles of provisions. The following are the prices: flour, 2 cts. per lb.—beef, 2 cts. per lb.—3 doz. eggs for 10 cts.—butter, 5 cts. per lb., and a great abundance of every thing at the most reduced prices."

HARVESTING CORN.

We find the following detail of an experiment in harvesting Indian corn, in the Massachusetts Spy, by a correspondent who dates at Bloomfield Farm, Harvard. It will be seen that its results agree with the practice of many of our best farmers.

"Last fall before the time for cutting stalks had arrived, I reserved twelve rows of nearly a square acre of corn to test the comparative utility of cutting the stalk (or topping) and stooking—or cutting up stalk and butt with the ear on. The rows were alternate, thus, No. 1, the easternmost row, was topped. No. 2, the second row, was stooked. No. 3, topped. No. 4, stooked. No. 5, topped. No. 6, stooked. Thus on to No. 12 inclusive. The stooked was bound with straw and carried out on the grass, when the rest of the field was topped. All was harvested at the same time.

The corn was husked into baskets, holding one and a half bushels of ears, 2d Nov., 1843.

Weight of stooked baskets of ears.	W'ht of unstooked baskets of ears.
No. 1 weighed 79 pounds,	No. 1 weighed 75 pounds.
No. 2 " 72 "	No. 2 " 73 "
No. 3 " 74 "	No. 3 " 74 "
No. 4 (not full) 67 "	No. 4 (not full) 19 13–16
Whole weight of stooked,.....	292
" " not stooked,.....	241 13–16
	50 01–16

Balance in favor of stooked, 50 lbs. 3 oz. in ear, by weight.

Balance in favor of stooked, 3 pecks, in the measure.

On the 17th of Jan. last past, both parcels were shelled.

The six unstooked, yielded 2 bushels and 3 pecks of shelled corn.

Difference in favor of stooked, 3 pecks of shelled corn.

On weighing the shelled corn, the difference in favor of the stooked was 47 lbs. 7 ounces.

On weighing the ears in November last, Mr. Wood, one of my men, my brother and myself observed that the stooked was not so dry as the unstooked. Consequently, the stooked weighed more and lost more on the cob than the unstooked. But the shelled stooked more than held its own on the last weighing. On using the stalks and buts of the stooked, which were cut up in four inch pieces, by Hovey's Spiral Hay Cutter, both parts, or rather the whole was found equally sweet and green. If it is added, that the rows of corn were 3 feet 6 inches apart and that the labor of harvesting the stooked, was, in every stage, less than by the usual mode (except in husking) you and your readers in general—and our old Harvard farmers in particular—will have all the elements necessary to make their own calculations, and may draw such conclusions as are warranted by the premises."

ESCAPE OF MANURE FROM THE SOIL.

Mr. S. M. Brockway of Hamburgh, Conn., proposes the following query:—"Does manure pass off from a sandy soil by evaporation, or does it descend deep into the earth with the water?"

We have no doubt that manure may be carried off in both of the ways suggested by our correspondent. If a quantity is taken and exposed to the action of the air and rains, its value is after a while dissipated. A person in close proximity to this manure, may have noticed a disagreeable odor issuing from it. This was an indication that some of the most valuable portions of the manure, were escaping in the form of gas. At the same time that waste is thus going on, rains may be washing away the valuable particles that are not taken off in the atmosphere, till at length, by the combined process of washing and evaporation, nothing is left but a mass of inert matter. Now the wasting process here described, may go on in a greater or less degree when the manure is deposited in the soil—modified, of course, by the nature of the soil, and the depth to which the manure is buried. In a very light and porous soil, a deeper covering is required to prevent waste from evaporation, than would be necessary in one more compact; but the more loose the soil, the greater would be the liability of waste from the descent of the manure by water. That manure, in some cases does thus descend, is proved from the fact that earth has been taken three or four feet from the surface, where barns and stables have stood, which exhibited evident traces of the enriching deposit, and which on being applied to the soil, plainly showed its fertilizing properties in the increased luxuriance of vegetation. On moist and cold lands, manure should be kept near the surface—if it is deeply buried, it lies inactive. On *wet* soils, especially for grass lands, we should prefer applying manure entirely to the surface. No specific rule can be given in regard to the depth to which manure should be placed in the soil; it must always depend on the kind of manure, the nature of the soil, and the kind of crop to be cultivated. In general, we should prefer to cover it no deeper than should appear to be necessary to prevent the escape of the gases evolved by decomposition; and this depth will depend as before said, on the character of the soil; an inch in some cases would be equal to three inches in other cases.

NEW PUBLICATIONS.

New Ag. Journal.—Prof. Emmons of this city, and Dr. A. J. Prime of Newburgh, have issued proposals for "*The American Quarterly Journal of Agriculture and Science;*" to be published in this city, in numbers of at least 150 pages, forming two volumes of 300 pages each per year, at $3 per annum. The first number to be issued early in January next. Prof. Emmons is well known as a member of our State Geological corps, from its first organization, and is now engaged on the part of the State, in the preparation of a work on the character of the soils of New-York, as ascertained from analysis; and Dr. Prime, though less known, has given evidence in his contributions to this and other journals, of his acquirements in agricultural science. We believe the time has arrived for the establishment of a work of this character, and if properly conducted, as we doubt not it will be, we believe it will be sustained.

Townley on Bees.—"A practical treatise on Humanity to Bees, or practical Directions for the management of Honey Bees, upon an improved and Humane Plan, by which the lives of Bees may be preserved, and abundance of Honey of a superior quality obtained." The above is the title of a manual of 162 pages, duodecimo, published by Edward Townley, New-York. It contains valuable information on the subject of management of bees, and is recommended to all who feel an interest in these useful insects.

MANUFACTURE OF CIDER.

If any cider is wholesome, that which is made right, is most so; and both as a matter of health and pecuniary profit, that which is of good quality, is most to be desired. There is no difficulty in making cider of such a quality that it will command from three to four dollars per barrel, by the quantity. The expense is but little more than is incurred in the dirty and slovenly mode of making the miserable stuff which generally passes by the name of cider.

Cool weather is necessary for making good cider, and the quality of the liquor is improved by letting the pomace lie as long before it is pressed, as can be done without fermentation.

There is a great difference in the quality of apples. Those should be chosen for cider, which yield the richest juice, though the quantity is usually less in those of this character, than in others. The apples should be *ripe* when ground, but not *rotten*, and care should be taken to put those which ripen about the same time, into the same pressing.

In the management of the liquor, the first and grand object should be to free it from all sediment. When this is properly done in the beginning, it will be easy to regulate the fermentation afterwards. The best mode which we have ever known practiced, is to pass the cider, as soon as it comes from the press, through sand and charcoal. Clean river sand, rather coarse, is best. For only a moderate quantity, a large tub or vat, may be used. Put in the sand and coal in alternate layers—having the coal in pieces of half an inch to an inch square. Lay a piece of flannel over the top, and turn on the cider as it comes from the press, as fast as it will run through. The flannel will catch much of the pomace, &c., which will after a while so fill the pores as to render it necessary to remove the cloth, and wash it, or substitute another in its place.

If the filtration is well done, the cider will appear perfectly pure as it runs from the sand, and should be at once put into casks and deposited in the cellar. After the casks are placed, the bungs should be taken out, till the fermentation has subsided. The fermentation will be somewhat retarded, and its activity much lessened, in consequence of the filtration. The casks should be kept entirely filled during fermentation, that the froth or scum may work out. As the fermentation abates, the bungs may be put lightly into the casks, and when no foam continues to rise to the top, the bungs may be driven tightly. The cider will sometimes keep well without further attention, for years; but in general, it is better to rack it off into other casks in the latter part of the winter. There will be found only a small portion of dregs in each cask, but in racking, care should be taken that none of the sediment runs off with the pure cider. If the casks are sound and good, and are kept in a good cellar, the cider will keep a long time without changing. If it is wanted for bottling, it will answer well for this purpose, when managed in the way described, the following May or June from the time it is made.

The casks for keeping cider should be made of the best of oak, well bound, and must be perfectly sweet. The cellar for storing, should be cool and dark. The temperature should be at all times as nearly as possible the same, in order that the cider may remain in the same state. The exclusion of light is necessary for the same reason, as the tendency of light is to produce decomposition.

Different substances have been recommended to be put into casks with cider. Salt, clay, alum, mustard-seed, fresh meat, eggs, and a hundred other things, have been tried. We have at different times seen cider in which many of these things were used, but never yet saw that which was as good as that made in a proper manner without any thing being added. Most of the articles tend to deaden the cider, and lessen its most essential qualities. Made as we have recommended, it is free from the *syrupy* taste of new or sweet cider, is spirited and lively, with a fine, rich vinous flavor.

To cleanse musty or foul casks.—If due care was always taken, casks would never get musty. As soon as the cider is out of a cask, it should be rinsed out thoroughly, dried, and then bunged tightly. But if from negligence, a cask becomes musty, the best way, as far as we know, to cleanse it, is to put in a quantity of unslaked lime, and pour boiling water on it till it is thoroughly slaked. Put in the bung, and shake the cask about so that the water and lime may come in contact with every part. Let it stand six or eight hours—empty it out—smell of the cask—if it is still musty, repeat the process, and after having again emptied out the lime, burn a strip of cloth dipped in melted brimstone, in the cask, fastening it by the bung. It must be a very bad smelling cask, that will not be rendered sweet by this mode.

DEFECT IN POTATOES.

For several years past, complaints have been made, in different parts of Europe, of a defect in potatoes. The injury to this important crop in some sections of Great Britain, has been very serious.

A similar defect, so far as we can judge from descriptions, has been more or less prevalent in this country the last and present season. The disease (if so it may be called,) has been before so well described in our columns, that we deem it unnecessary to say any thing particularly on this point. We hear considerable complaint of the present crop being affected in this State—especially, to the south and west. In a late trip to Orange and Dutchess counties, &c., we saw scarcely a field of potatoes, that did not exhibit signs of a premature ripeness, or blast, which is, we think, the first indication of the defect and tendency to rot. In a trip of some forty miles to the north, made since returning from the southern counties, we did not find the indications of this defect so prevalent, and heard little or no complaint in regard to it.

The *cause* of the defect, seems to be involved in as much obscurity as ever. We have heard many conjectures, all more or less differing from each other. Some have supposed the trouble was produced by an insect. We have made some examinations, but found no evidence of any. So far as we are at present enabled to form an opinion, we are inclined to believe that the occurrence of unfavorable weather for the potatoe, at a particular stage of its growth, has been the exciting cause of the defect—that the least hardy varieties, and those planted in ungenial soils, or too late in the season, have been most predisposed to suffer. We saw the other day some striking contrasts of the condition, product and quality of different kinds, at Professor Hall's place, near this city. Among several kinds, planted on the same description of soil, we found a variety called *Mercers*, (called in Pennsylvania, Ohio, &c. *Meshanicks*, *Neshannocks*, or *Chenangoes*,) had suffered most. Some other kinds, planted in adjoining rows, and at the same time, were but little affected. Of the latter, we were much pleased with a kind called *Early June*, a good sized, round, white potatoe, of a quality (as we have proved) unsurpassed for the table, and giving a good yield. They were ripe sufficiently early to sow the ground with turneps for a fall crop. So far as we have seen or heard, the kinds called *Flesh colors*, the round blue sorts, and the *Merinos* or *Long reds*, have not been much affected, unless on wet, heavy soil.

Mr. M. Y. TILDEN, of New Lebanon, writes us under date of Sept. 6, as follows:—"I have this day been through a field of three acres of potatoes that would have given us at least 1,000 bushels, and find it badly affected with the new potatoe disease. What portion of them will be left, is beyond conjecture. We opened many hills, and the result of our examination satisfied us that the early planted, or those which were nearest ripe, were the least affected. Where the tops were green, we found scarcely a sound one. We also found that the flesh colored were less affected than the Mercers, Carters, or Pink eyes. In another field, I examined some of the old fashioned Merinos, and did not find any injured; the tops of these were quite green. I will examine them again by and by, and give you the result."

☞ THE CAMELLIA, or rose of Japan, in its native clime, attains the height of 12 to 15 feet

SALT MARSHES.

The expediency of reclaiming salt marshes, seems to have been heretofore looked on by some as questionable, from the fact that many marshes which have formerly been diked, have proved unproductive after the lapse of a longer or shorter time, and have consequently been suffered to relapse into their former condition, or be flooded again by the tides of the ocean. This, we are informed, has been the case in several instances in Mass. But the results do not seem to have been uniform, for though in some cases the anticipated profits have not been realized, yet in others, success has been quite satisfactory. The productiveness of these reclaimed marshes seems to be regulated in a great degree by local circumstances—as the nature of the soil, the perfection of the work of reclamation, &c. The expediency of diking, was considerably discussed in the New-England Farmer some twenty years since. Hon. John Welles wrote several articles to show that the advantages to be derived from diking, were so uncertain, that the operation was in general inexpedient. Among other reasons for his views, Mr. Welles held that "an acre of salt marsh is worth as much as an acre of any grass land whatever." Mr. W. says further in regard to this land, "that it requires little or no fencing—it takes no manure from the farmer's yard, but is recruited for the product it yields, wholly from the sea; and it requires few or none of those natural or incidental labors which are common to all upland. The product of the marsh is of great advantage to cattle, especially in the interior, as a change of food, and as a gradual and natural supply, in the best state, of saline matter. This is apparent in their thrift, and it has long been known to our farmers, that the value of the manure has been much increased where this fodder has been used."

In opposition to the views of Mr. Welles, that the diking of marshes is injudicious, a correspondent of the New-England Farmer (for March 2, 1827,) cites an example of reclaimed marshes in the Little Harbor of Cohasset. As early as 1789, the marshes of this place were diked by a company incorporated for the purpose. From some accident, the dike fell into decay. "In 1792," (says the account,) "the proprietors rebuilt the dam, and succeeded in converting the meadows into English grass, which from that time to the present, has yielded a more certain crop than almost any other land. None of the meadows extend further than thirty rods from the upland, and abound with fresh water springs."

In the American Farmer's Encyclypedia we find the following directions for reclaiming marshes, said to have been derived from Mr. T. F. Lambson, of Salem, New Jersey:

1st. The marsh should be secured from the tide by a permanent bank. 2d. A sluice or sluices of sufficient capacity must be laid to discharge the rain water and back water which proceed from adjacent uplands, so that at no time the water-courses and ditches will be filled to overflowing. The sluices should be laid deep enough to draw the water through them from the lowest part of the marsh; great care should be taken to have the doors made tight, so as to exclude all the tide water possible. The water-courses and drains should intersect each other at right angles, and no lot of marsh should contain more than ten acres. If any rain water should remain upon the middle of these lots, it will be necessary to cut small drains to let it pass off freely; these might be covered, where the materials are at hand. The mud and earth which come out of the water-courses and ditches, should be removed into the lowest part of the marsh; by a neglect of this, the rain water will be confined too long upon the surface, and the most luxuriant growth of timothy or clover may in a short time be converted into a nursery of rushes.

The best time to sow down with grass, is when the tide is first shut off, and when the mud is soft; a growth of coarse grass will spring up sufficient to protect the young grass in its tender state; this crop should be mown off, and not suffered to lodge upon the marsh. Timothy and herds grass require about one bushel to sow four acres. The former will flourish where the water can be kept 2½ or 3 feet below the surface; where it approaches nearer than this in the ditches, the latter will succeed best. In order to avoid having it sown in rows, it should be sown a second time across the first sowing. It is not advisable to mow longer than three years in succession; to mow and pasture alternately is the better plan. If the high marsh becomes bound and unproductive, plowing will be necessary; and after raising two or three crops of rye, Indian corn or broom corn, without the application of any manure, the soil will be quite renovated, and when sown down in grass will be much more productive. When the earthy deposit is several feet in depth, it will not soon be exhausted; when it is not desirable to plow, lime may be used with success. Low marsh or turf, or as we term it here, "*horse-dung*" mud, should not be plowed; when it becomes unproductive, a covering of clay or loam to the depth of two or three inches, will be found the cheapest application.

ROT IN FRUIT.

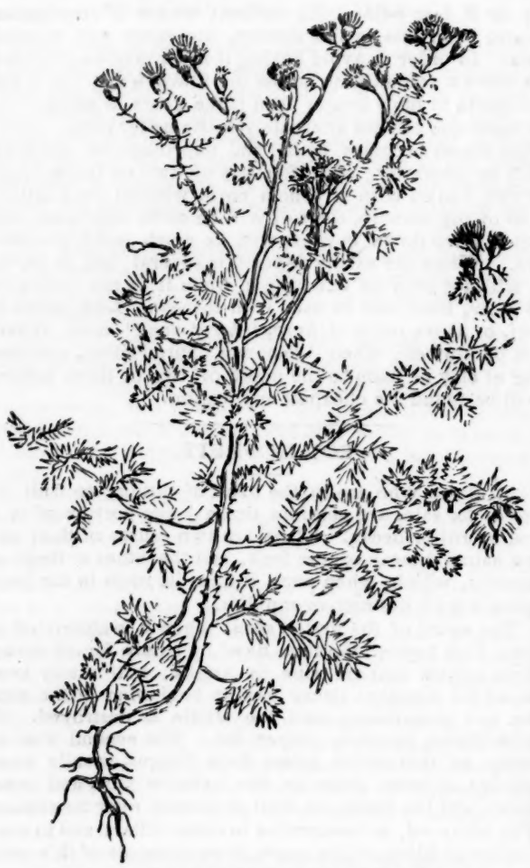
All those who are in the habit of putting up fruit for use or for sale, are sensible that a large portion of it is lost by rot or decay. There are two causes of this; one the natural decay of the fruit, and the other a fungi or parasite, which, when once it fixes its roots in the fruit, spreads with destructive rapidity.

The result of the first is seen, when it is attempted to keep fruit beyond the time fixed by nature for its decay. Thus apples that are ripe in August, will rarely keep sound till January; decay usually beginning at the center, and progressing until the whole is destroyed. So with plums, peaches, grapes, &c. The second kind of decay, or that which arises from fungus, usually commences at some point on the exterior part, and penetrates into the inside, as well as spreads over the surface. The *bitter rot*, so destructive in some cellars, and to some particular kinds of the apple, is an example of this parasitic destroyer.

Mr. Hassall of London has lately been engaged in a series of microscopical experiments on these fungi, determining their characters, and the manner in which they are propagated. He produced apples inoculated with the sporules of the fungi only three days previous, in which the rot had already extended to the size of half a crown; and the fruit was unfit for the table. It appears from the experiments of Mr. H. that the seed-like bodies of these fungi are too minute for the eye to detect, even in masses of considerable size, and they are always floating in the air around the place where such plants are able to fructify; wherever they meet with a portion of the skin of a fruit, a little torn or abraded, there they can establish themselves; and when the surface of a fruit is in no way injured, they are able, but with less rapidity, to introduce their microscopical spawn through the pores of the skin.

It is not improbable that the disagreeable odors so common in fruit cellars where decaying fruit is present, is in a great degree owing to these microscopic sporules that fill the air of such places; and the propriety of thorough ventilation would suggest itself as the means of checking the progress or spread of the fungi. It may seem incredible at first, that such minute substances should operate so quickly on living vegetable matter; but the instances mentioned by Liebig of the action of putrid animal matter applied to the living tissue, would seem to place this rapid action of vegetable poison on fruit in a clear light. We observed not long since an account of a fruit grower in Herefordshire in England, who preserved his fruit in a perfect condition, even when piled in large masses, by dashing over them once a week a sufficient quantity of pure water to wet the whole thoroughly, the apples being so placed on hurdles in the cellar, that the water could drain off readily. It is evident such an application of water would displace any sporules or fungi, unless they had taken very firm root, and it is probable the water would have the effect of imparting a vigor to the fruit, that would enable it to resist for a longer time the attacks of this insidious and destructive enemy.

Save all your straw for winter feed and litter.

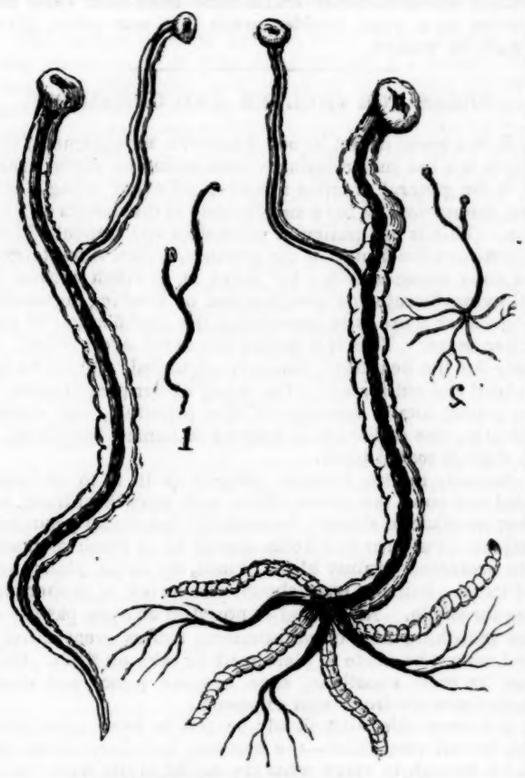


CANADA THISTLES IN MARYLAND, &c.

In compliance with the suggestion of Dr. SMITH, we here give a cut of a Canada thistle. It was taken from a plant growing somewhat by itself, and has many more branches than are found on those which stand near together. When this plant has obtained full possession of a piece of ground, it grows very thickly, running up in a slender stalk, with only a few lateral branches, and a few blossoms at the top. Unlike every other description of thistle, the root of this variety is perennial. Almost the smallest quantity of the root possesses the power of reproduction—the roots run a great distance, both downwardly and horizontally, which makes its eradication very difficult. A few days ago we saw some growing finely which had sprung from roots that were cut off at least two feet from the surface of the ground, where some workmen were grading a street. The best way to kill them is by mowing when they are in bloom. This is often quite effectual, but if they start afterwards, they should be cut again the same season. In the specimen from which our cut was taken, not much of the root was obtained, in consequence of the hardness of the ground. Its lateral roots are very numerous, and of the size of a goose-quill. Mr. Smith, says:

I hope the farmers of Maryland, and of the middle and southern States generally, will keep a good lookout for this terrible pest. They may be assured that they never have had an evil of one-tenth part the magnitude of this when it once becomes located upon their land. Loudon in the Encyclopedia of Agriculture, thus speaks of it: "*Cnicus arvensis*, (the Canada thistle,) is well known as one of the most troublesome weeds in arable land. It is never found, however, in very sandy, gravely or peaty soils, (in England,) but generally in such as are loamy and dry. An instance is given in the Farmer's Magazine, of the descending roots of this plant having been dug out of a quarry *nineteen feet long*; nor is it less remarkable for its horizontal roots. Mr. Curtis planted about two inches of a root in his garden in April, and by November following, it had thrown out under ground stolones (creeping shoots from roots,) on every side, some of these eight feet long; some of which had thrown up leaves five feet from the original root. The whole together when dug up and washed, weighed four pounds. In the spring following, it again made its appearance, on or about where the small piece was originally planted. There were between fifty and sixty young plants, which must have sprung from fragments of the roots that had eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may readily be conceived how difficult it is to eradicate this weed from arable land. A naked fallow, with frequent and deep plowing, will not accomplish it, unless the season is more than usually dry. Laying land down to grass, keeping it in that state seven or eight years, and during the whole time pulling up every shoot as soon as it appears, is found fully more effectual than a naked fallow. But the plant is so common by road sides, and seeds so abundantly that it is hardly possible to effect its extermination. In common field lands and others indifferently cultivated, it often forms the larger half of the produce, and formerly used to be pulled up when beginning to come into flower, and given as food to horses and cows. Those who pull this weed require to be furnished with strong gloves or thistle pincers." I have made this extract not for the information of the northern readers of the Cultivator, nor any others who have the misfortune of being acquainted with the pest from their own experience; nor is this article written for those; unfortunately *they* know enough about it already; but my object is to put such information in the possession of the farmers of those sections of our country not yet cursed with this thistle, as will enable them to know the extent of the evil if it should ever come upon them, and that they may be prepared to prevent it. Let them be forewarned, and consequently forearmed. The Canada thistle will undoubtedly be among us (in the middle and southern States,) before long. It is indeed, even now in Delaware, and very likely indeed in Maryland, and possibly even further south and further west, in single plants here and there. If so, the work of extermination should be at once commenced. Every plant and vestige of root should be taken up and *burnt*. It will not do to throw them over the fence into the road or into the cow-yard, or any where else; fire alone will destroy the roots and seeds. A gentleman, just returned from the northern part of New-York, has kindly presented me with a specimen of the thistle, and he has left another at the office of the American Farmer. The object is to keep these specimens for exhibition to all farmers, that they may be enabled to know it when they see it on their land. It is sincerely hoped that we may be able to arrest the progress of the pest before it shall have taken possession of our fields in this region; but it will require the united and hearty co-operation of all farmers. Each farmer must watch his own land and look for it carefully; he must keep a good look out for it on his neighbor's lands, and on the road side. Let him never pass by a plant of it *any* where, but secure its destruction. The destruction of a single plant this season, will prevent the growth of some thousands next year. Its seeds are so numerous, so light and so provided with a feathery pappus, that a single plant would seed the grounds for miles around, the wind blowing them in every direction. I hope I shall not be considered as an alarmist without cause. I assure all that may question the propriety of this warning notice, that the evil is not exaggerated; my fingers even now *seem* to smart with the stings received when a boy in the north, from pulling Canada thistles; nor is the evil as far off, nor the time of its coming, as distant as may be supposed. It is in Delaware now, to a small extent, it is true, and it will be among us, further south, speedily. And as to the earnestness with which I recommend its being watched and taken hold of in time, let us consider, that if our predecessors had adopted the measures now recommended towards this thistle, we should not now have had our fields overrun with Richardson's pink, (the ox-eye daisy,) wild carrot, cheat, garlic, ripple, and many other pests; none of which, however, in extent and inveteracy, compare with the evils inflicted by the Canada Thistle. GIDEON B. SMITH.

The rot in the potatoe is extending over all this region.



GAPES IN CHICKENS—(Fig. 91.)

MESSRS. EDITORS—From all I have seen and heard on the subject of what is called the gapes in chickens, it is a disease which is not generally understood. I shall therefore give you my opinion on its nature and cure. This spring, having my chickens attacked as usual with the gapes, I dissected one that died and found its *Bronchus or wind-pipe*, (not the throat,) filled with small red worms from half to three-quarters of an inch long. This satisfied me that any particular course of feeding or medicine given would not reach the disease. I therefore took a quill from a hen's wing, stripped off the feathers within an inch and a half of the end, trimmed it off with a scissors to about half an inch wide, pointing it at the lower end. I then tied the ends of the wings to the legs of the chicken affected, to prevent its struggling; placed its legs between my knees, held its tongue between the thumb and fore finger of the left hand, and with the right, inserted the trimmed feather in the windpipe (the opening of which lies at the root of the tongue,) when the chicken opened it to breathe, pushed it down gently as far as it would go (which is where the windpipe branches off to the lobes of the lungs, below which I have never detected the insect,) and twisted it round as I pulled it out, which would generally bring up or loosen all the worms, so that the chicken would cough them out, if not, I would repeat the operation till all were ejected, amounting generally to a dozen; then release the chicken, and in the course of ten minutes it would eat heartily, although previous to the operation it was unable to swallow, and its crop would be empty unless filled with some indigestible food. In this manner I lost but two out of forty chickens operated on; one by its coughing up a bunch of the worms which stuck in the orifice of the windpipe and strangled it—the other apparently recovered, but died several days after in the morning; in the afternoon upon examining its windpipe, I found a female worm in it, differing from the others by branching off at the tail in a number of roots or branches between each of which were tubes filled with hundreds of eggs like the spawn of a fish; and although the chicken died in the morning, the worm was perfectly alive in the afternoon, and continued so for half an hour in warm water. While I was examining it in a concave glass under a microscope, it ejected one of its eggs, in the centre of which was an insect in embryo.

From this fact, I have come to the conclusion that when the female worm breeds in the chicken and kills it, these hundreds of eggs hatch out in its putrid body in some very minute worm which probably after remaining in that state during the winter, change in the spring to a fly which deposits its eggs on the nostril of the chicken from whence they are inhaled and hatched out in the windpipe and become the worms I have described.

There is one fact connected with this disease—that it is only old hen-roosts that are subject to it; and I am of opinion that where it prevails, if the chicken houses and coops were kept clean and frequently whitewashed with thin whitewash, with plenty of salt or brine mixed with it, and those chickens that take the disease, operated on and cured, or if they should die, have them burned up or so destroyed that the eggs of the worms would not hatch out, that the disease would be eradicated.

I am also satisfied that the chicken has not the disease when first hatched; several broods that I carried and kept at a distance from the chicken-house where the disease prevailed, were entirely exempt. And chickens hatched from my eggs where they had never been troubled with this disease, were perfectly free from it; and a neighbor of mine who built in the woods half a mile from any dwelling, and has raised fowls for six or seven years past, and has frequently set my eggs, has never had the gapes among his chickens.

With my first broods of chickens, there was not one escaped the gapes. But all that have been hatched since I had the chicken-house and coops well whitewashed inside and out, with thin whitewash, with plenty of brine in it, and kept clean, have been exempt from the disease, with occasionally an exception of one or two chickens out of a brood.

In operating on the chickens, although one person can effect it, it is much easier done to have one to hold the tongue of the chicken while the other passes the feather down its windpipe, and by having a small piece of muslin between the fingers, it will prevent the tongue from slipping, which it is apt to do upon repeating the operation.

Accompanying this, I send you drawings of the gape worms in their natural sizes, and as they appear when magnified. Nos. 1 are the male worms, and Nos. 2 the female; you will observe that the heads of both male and female branch off in two trunks with suckers like leeches at the extremities of the trunks, one trunk longer and thinner than the other. The intestines extend from the branching of the trunks downwards towards the tail, and are perfectly apparent when magnified. This female branches off like the roots of a tree at the tail with intermediate tubes filled with small oval eggs.

Yours, &c. C. F. MORTON.

Mill Farm, New Windsor, Orange co., N. Y. Aug., 1844.

ON THE BLIGHT OF PEAR TREES.

It appears that they are subject to blight from two causes—like other trees, if placed in land which at times is very wet—in a dry time such trees will suffer from want of moisture at the roots, and like forest trees in similar cases, will die off—they should be placed on rolling land where the water can run off freely. But the most common cause of blight in pear trees is a worm, the egg of which is deposited in the branches by a small insect. If iron ore or cinders of iron, or any other articles of iron be placed around the roots of the tree, the insect will bid adieu to the tree. Having tried this remedy in a sandy soil, and also on a stiff soil, and in places far distant from each other, and having driven off the insect when the trees of others were very much injured or destroyed in my neighborhood, I feel as if all who are troubled by these insects should carefully try the use of iron articles rather than to be under the necessity of continually topping off the limbs which contain the worm or young insect. It is probable that the iron is unfavorable to the worm which drops from the branches and makes its wintering place at the root of the tree, and then the insect avoids an unfavorable location for its young. But whatever may be the theory, it is sufficient that iron has the desired effect. C. D.

PLUMS.

One of the most successful cultivators of plums, is Mr. ISAAC DENNISTON, of this city. For more than fifty years, the production of choice fruits of various kinds, has been with him an object of attention, and he has the gratification of having on many occasions borne off the palm as the exhibitor of the finest specimens of plums at the New-York Horticultural Shows. He has upwards of *forty* valuable kinds, ripening from July to November. Perhaps the richest of all these varieties, is the *Schuyler Gage*. The history of the introduction of this fine kind, Mr. Denniston informs us, is as follows. The original tree was brought from France by Aaron Burr, and given to Col. Schuyler, formerly of this city. For some reason or other, Col. Schuyler did not feel disposed to disseminate the variety, but after his death, Mr. Denniston bought the identical tree which had been brought from France, and transplanted it to his garden. The fruit, which ripens in August and September, resembles in appearance, the Green Gage, but is higher flavored, and more spicy. The tree is much more hardy and thrifty than the Green Gage.

Among other very rare and superior kinds, is a seedling called *Mrs. Bleeker's Large Red*. This originated from stones sent Mrs. B. from Germany. The fruit is large, of a bluish red—very melting and rich. Ripens in August and first September.

Murray's Queen Claude.—Green, good size—very rich and sweet. Ripens in August.

Lawrence's Favorite.—This is one of the richest of all plums. It is said to have been produced from the seed of the Green Gage, by Mr. Lawrence of Hudson, N. Y. The fruit is of large size, nearly round—the skin a dull green, covered with blue bloom. A clingstone, ripens in August and first September.

Mr. Denniston has several very choice seedlings originated by himself. He has no less than *seven* kinds which came from a tree obtained several years ago from Mr. Banker of Esopus. All these are good—some of them superior—but all quite distinct in their characters. To one of these seven seedlings, the name of *Denniston's Imperial Seedling*, has been given. This, besides being of very superior quality, is one of the most beautiful of fruits. It is large, round, of a golden yellow color, with a beautiful damask blush on one side. Ripens in September. Very productive.

Another of these seedlings, which was a great favorite with the late Judge Buel, is yellow, with a slight pink tinge. Ripens in August. Very productive.

Mr. Denniston kindly offers to give buds of any of his fruits to those who may wish them.

Mr. D.'s garden consists of four acres, and a greater product of four acres than he obtains, is rarely seen. Of these, the greater number are plums, but there are many apple and pear trees. All are managed in the best manner, and produce abundantly. Notwithstanding the large number of fruit trees, which seem to stand as closely as trees ought to stand, Mr. D. manages to raise a large quantity of vegetables of all kinds, and considerable Indian corn, besides an abundant crop of the finest red and white Antwerp raspberries. The latter are equal to any we have ever seen. Mr. D.'s mode of managing them, is to train them to stakes placed in rows four feet apart, and about three feet apart in the rows. In August, all the stalks or canes that have borne fruit, are cut down, reserving from four to six stalks of the new growth, for bearing fruit the next season. The tops of these are cut off to about four-fifths of the growth, and the stalks are then, by a piece of matting, bound round near the top, fastened to the stake. In this way they are kept up so that they may be conveniently hoed—they bear abundantly, and require no protection in winter. The raspberries are generally grown under the plum trees—indeed, nearly all the ground in the garden is made to yield, annually, a double crop.

The soil of Mr. Denniston's garden is a loam, lying on a pretty compact clay, which is not generally more than a foot or two from the surface. He thinks this kind of soil, made rich by street manure, is the best for plums. A thousand dollars worth of plums, and several hundred dollars worth of other fruits have been sold from this garden in a year, besides much that was eaten, given away, or wasted.

TREES FOR SHELTER AND ORNAMENT.

It is a great defect in our American management, that there is a too indiscriminate destruction of forest trees. It is the general practice to sweep off every thing, leaving the ground as bare and desolate as the deserts of Arabia. This is bad policy in more than one respect. First, it destroys the *beauty* of the grounds, which should never be done unnecessarily; for there is as much reason in allowing the *eye* the gratification of viewing agreeable objects, as there is in permitting the gratification of any other sense. This is a matter too much overlooked. A taste for the beautiful, properly regulated, should be indulged and cultivated. Too many of our people seem to be almost totally ignorant of this principle, and consequently, one of the chief sources of human happiness, is to them a sealed book.

Second, in this climate, subject as it is to extreme heat and cold, the preservation and growth of trees, either as shade or shelter, becomes an important pecuniary object. Pastures and fields should be as much as possible protected against bleak winds, by dense plantations of trees. Suitable trees should also be left in proper places for shade. An animal exposed in an open pasture to the scorching heat of midsummer, suffers great misery, and cannot be made to yield milk or take on flesh. Horses, in such situations, soon become poor, and sheep sometimes die from such exposure.

All steep side hills should be left in trees—they need not be left very thick—the best way is to leave them just thick enough to make what are called in the west, wood or grove pastures. Then, if the ground is smoothed a little, grass seed may be sown, and a fine sward will be soon formed. If the ground is natural to grass, it will soon become swarded without sowing any seed. These places will thus produce a good deal of feed—the grass will keep the land from washing—the trees serve for shade, and ultimately for fuel. All gorges, gulleys, &c. should be left in trees, or planted with them; they will frequently produce a good growth of wood, but will bear nothing else, and if the trees are destroyed, the land is soon cut up and washed away by rains. Managed in the right way, these steep side hills and gulleys serve to give interest and even beauty to a place, instead of wounding the senses, as they frequently do, by their unseemly nakedness.

The maple, oak, elm, hickory, ash, &c. among the hard wood trees, are suitable for preservation or planting, and among the soft wood kinds, the various sorts of pine, fir and larch. The pine and fir, being evergreens, should be allowed their due representation in all groves, both as a matter of ornament, and for protection against the cold winds of winter. In Scotland, great attention is paid to the protection of mountain and hill land pastures, by plantations of trees. The *larch* is there recommended as one of the most profitable kinds that can be used—particularly on account of its rapid growth, and its value as timber. How would the American larch do in this respect? It may be well to say that the American larch is what in some neighborhoods is called juniper, though the real juniper is altogether a different tree. It is an evergreen of the cedar family, whereas the larch is deciduous. We have only noticed this tree growing naturally in wet and boggy ground. Will it flourish well in other locations? Would the Scotch larch do well on common uplands? and would it be an object to plant it in such situations? What is the distinguishing difference in the Scotch and American larch, as regards their natural habits of growth, quality of wood, &c.? We shall feel obliged if some one will answer these queries.

CATTLE SHOWS.—Niagara, at Lockport, Oct. 9, 10—Wayne, at Lyons, Oct. 8, 9, instead of 28th, as stated in our last—Herkimer, at Herkimer, Oct. 3, 4—American Institute, New-York, Oct. 16, 17.

House all tools—plow for spring crops.

VEGETABLE NUTRITION.

The writer scarcely expects to be able to offer any new views to those who have studied the subject thoroughly. His object is to endeavor to explain the subject to the understanding of practical men,—the farmers and gardeners, those who work the soil and derive their sustenance from it. Generally speaking, *all tillers* of the soil know that if they apply a load of horse stable manure to a certain quantity of land, the product will be increased by it to a certain extent; but they do not know the minute principles on which it acts. We all know that when we eat our dinners, our hunger is satisfied, but how many of us know the true cause of that hunger and the mode or true cause of its satisfaction? It is precisely the same with plants as with animals, including men. If we do not get enough to eat, we languish, and ultimately perish; if plants do not get enough to *eat*, they also languish and perish, or yield a stinted product. Plants and animals are enabled to grow by what they eat, and although their mode of eating, is different they both act upon the same principle, and both grow by what they feed on, and in no other way. This is vegetable and animal nutrition. The increase of a plant in size, is supplied by its nutrition, so is that of an animal—if neither have any thing to eat—if a plant have no manure, an animal no food, neither can grow, both must perish. These are plain matter ef fact principles that all understand. Now a new soil—that is, a soil just cleared of the timber, possesses a quantity of nutrition, from leaves and other substances that have decayed on its surface in the course of time, and hence new land is proverbial for good crops; but it is soon exhausted, and then a supply becomes necessary from some other source—just as your corn crib or meat house requires replenishing when exhausted of its contents, that your table may be supplied. This is the plain common sense reason why manure is necessary to a soil—if your meat house and corn crib require a new supply of meat and corn when their old supply is nearly or quite exhausted, so does your soil require manure when that approaches exhaustion.

But how does manure act in a soil, is a question most frequently asked, and the answer is, it acts precisely as does the meat in the meat house, and corn in the crib. Plants eat as well as men. If you have no provender for your cattle, you do not expect them to thrive; if you have but a scanty supply of poor straw, you do not expect your cows and oxen and horses and sheep to get fat on that alone; so, if you have no manure of any kind to apply to your land, you do not expect large crops of wheat, or corn or rye. These you will say are all common place remarks—every body knows all this very well. The object of bringing all this common place matter before you, is merely to lay the foundation, as it were, of the building. You all admit that food is as necessary to plants as to animals. The next question is, how do they take it, and how appropriate it to the supply of their necessities? We do not *see them* take it by the mouthful and masticate it, and swallow it; but it does not follow that they do not do this because we do not *see* them do it. There are at the ends of the roots of all plants, small, extremely small mouths through which they take food. Those little, extremely fine hairy roots, have small openings by which they take from the soil such matter as is nutricious. This matter is dissolved by water in the soil, and thus rendered fit to be taken up by the roots of the plants. That is, the nutritious principles that may be in the soil are dissolved by and combined in water. They in this medium enter into the sap vessels of the plants; just as do the nutricious principles taken into the stomach of animals, enter into the blood. In this way they are carried up the plant to the leaves, where they are exposed to the action of the atmospheric air; as is the blood carried to the lungs in animals for the action of the air. When the sap or circulation of the plant has had sufficient exposure to the action of the air, through the medium of the leaves, it commences its return downwards towards the roots, supplying in its way such parts of the plant as need renovation or addition of woody fibre, &c. and when such quantity as is needed has been thus taken by the various parts of the plant, the balance, if there be any, and that which has been rejected as innutritious, is voided in the form of excrement, by the roots, just as is done by animals.

We now come to consider the form or nature of the nutritious principles taken from the earth. All the different constituents of nutrition are in the soil and mixed together mechanically or chemically. They are dissolved and held in solution by water. The roots of plants absorb this solution in such quantity as may be required by the plant, and it passes into the plant through the channels formed for the purpose called sap vessels, analogous to veins in animals, and immediately ascends to the leaves, where it receives the necessary action of the atmosphere—some say it receives the necessary supply of carbonic acid gas; I suppose it receives in addition to carbonic acid gas, nitrogen; that is, that it is nitrogenized as well as carbonized, just as is the blood of animals oxygenized. It then returns towards the roots, through another set of vessels, analogous to arteries in animals, and as before remarked, supplies each part of the plant with the necessary material to restore its waste or aid in its growth. In this process, the plant does not take up crude matter, charcoal or lime, or potash, but the elements or gases that are found in the sap, and that constitute these and other portions of the plant. This whole process is precisely the same as that through which the nutrition of men and animals is carried. Now if we apply common salt to a piece of ground, we must not understand that the plants growing on it will take up salt in substance. If they take any thing at all, it will be the elements that constitute salt, or those formed by the combination of those elements with such suitable materials as may be found in the soil. And so with other articles. Suppose we apply potash to the soil, in the form of ashes or otherwise, if there be silicic acid in the soil, then silicate of potash will be found mingled in the sap of the plant, from which the plant will obtain that glossy coating which we see on the outside of straw, cane, &c. If there be no silicic acid in the soil, and there be potash there already, then it is obvious that silicic acid, not potash, is to be added. So with all other constituents of plants. It is perfectly impossible for a plant to take from the soil any organized substances, woody fibre, potash, &c., but it must take the elements of such in solution, and form and appropriate them by means of its own organs, just as animals do. Hogs do not take their *pork* and *bristles* from the corn they feed on, but they make them from the elementary principles they obtain from the corn and atmosphere. We hear people talk of *sour soils;* there can be no such thing as a sour soil, *as such*, or *per se*. Some vegetables grow on any and all soils; and if nothing else grows there, it does not follow that the soil is *sour*, but simply that there are none or not enough of the elements of other plants to supply their growth. For example, starch is composed of carbon, oxygen, and hydrogen; and sugar is composed of the same elements, only in slightly different proportions. Now oxalic acid, (the acid of sorrel,) is composed of carbon and oxygen, and these elements must necessarily exist in all soils; add hydrogen, which will certainly be supplied by rain water in abundance in all soils, and you will have the elements of starch and sugar, as well as those of oxalic acid. But you may add potash to what is called a sour soil, or lime, or soda, and still sorrel will grow there; because each plant takes from the soil and from the atmosphere, that which it requires to constitute its substances, and nothing else. You may make the most perfectly rich soil that ever lay *out of doors*, and plant sorrel or the oxalis, in it, and you will find that they will thrive equally with all other plants; just as all varieties of animals, thrive; horses, hogs, sheep and birds, on the same farm, each one taking that sort of food that suits it. The great mistake, and that which has caused much loss to farmers, is the supposition that plants convert compound or combined substances as such, into nutrition. The fact is, that all substances that afford food for plants are reduced to their original elements in gaseous or watery form, or in both, mixed. Water affords in itself a valuable source of nutrition to plants. It contains hydrogen, and there are few portions of the plant that do not want hydrogen; it contains oxygen, and there is not a single part or po

tion of the plant, (let it be what plant it may,) that does not contain oxygen. Water is besides, in plants as well as animals, a solvent for the other elements of nutrition. The blood in animals, cannot exist without it; or if it can exist, it cannot circulate to the advantage of the animal; just so with the sap of plants. Water not only affords as it were a vehicle for the conveyance of nutrition to the various parts of plants and animals, but also a considerable and indispensable portion of the nutrition itself.

As an illustration of these principles of nutrition, a well known fact in horticulture may be mentioned. If in the fore part of summer, after the tree has shed its blossoms, you *ring* the limb of an apple tree, that is, take off the bark for a quarter of an inch around the limb, near the trunk of the tree; or, which answers equally well, place a small wire around the limb near the trunk, drawing it tightly so that it shall be made to sink into the bark all around; you will find the limb will increase in size above the ring, but not below it; and the fruit, if it bear fruit, will be larger and ripen sooner on that limb than that on any of the others. The reason is, that the ring has intercepted the descent of the nutricious sap from the leaves at the top, and thus compelled its conversion to the growth of the limb and the fruit above the ring.

The conclusions to be drawn from the principles above laid down are obvious. 1st. Plants take nourishment precisely as animals do, except the apparatus, (the mouth) and mode of taking it, differ in form. Plants as well as animals, reduce all substances that contain nutricious principles to their original elements, before they convert any portion of them to their own organism. Therefore, when we apply stable manure to soil, we do so merely to enable the soil and the plants to extract from it the nitrogen, &c. that its ammonia contains. The plants do not take up ammonia, but simply one of its elements, nitrogen. The elementary principles of the manure are all in like manner taken up and combined. If there be an excess of any one element, that excess is excluded from the sap; and if the sap contains an excess of any principle, that excess is ejected in the form of excrement. Indeed this paper may be appropriately concluded witth the remark that *life is supported by death.* Death must take place in *something*, before *any thing* can receive nutritive matter; because it is from the death and dissolution of one thing, that the nourishment of another is obtained. If animals and plants do not die, man cannot live or be supplied with meat and bread; and if animals and plants do not perish, plants cannot live. From the dissolution of one body, animal or vegetable, another body derives the elements of its own growth, its woody fibre, sugar, &c.; its flesh, bone, &c. But every thing must be reduced to its original elements, before its constituent principles can be appropriated to other forms. In fact, all processes of life, in both kingdoms, animal and vegetable, and the mineral too indeed, are nothing more than the changing of places of the elements of organization. An animal dies, its body *decays*, as we call it. But this body does not decay. The elementary principles of which it is composed, merely *separate*, and form new combinations—one portion enters into and becomes a portion of a plant, probably a rose or a lilly, probably of a skunk; just so with a plant. A portion of its constituent principles becomes absolutely a part and portion of the body of Queen Victoria, or of that of a goose, or of that of any other animal. But let us stop. The IDEA intended to be conveyed in this paper, must by this time have become obvious—vegetable nutrition is the same thing, neither more nor less than animal nutrition; governed by the same laws, resulting in the same effects, requiring the same provision. GIDEON B. SMITH.

NEW KIND OF CABBAGE.

Mr. John Lossing showed us the other day, what he calls a *Roman Cabbage*. The variety seems to possess some peculiarities. It is more solid, and heavier in proportion to its bulk, than any we have seen. It also grows very quick. The head shown us, weighed 20 pounds on the 20th of July. Its shape is oblong, and much pointed at the top. It is said to keep better than any other cabbage. The seed was brought into the country by some Germans.

APPLES AS FOOD FOR ANIMALS.

Apples, when ripe, afford more or less nutriment to animals. Sweet apples are generally supposed to be most nutricious, though we are not certain that this supposition is correct. Our fathers and grandfathers held that sweet apples would fatten hogs; but in latter years, it has been proved that hogs will fatten on apples that are not sweet.

A hog is naturally an epicure—(we don't say an epicure is a *hog*)—and when left to himself is a pretty good judge of what is best. Observe, then, what are his natural habits. Put him in an orchard where there are various kinds of apples, and see how he will work, or rather how he will *eat*. He will always select the most *palatable* apples—he will not confine himself to one kind, nor to sweet apples alone; but will go over the orchard and pick out the choicest fruit, always choosing that which is in such a state of ripeness that its qualities are nearest perfection. Like the boys, his regular haunts are the "*best trees*," whether the apples are sweet or pleasantly sour; but he never eats a real *crabbed* apple, or an unripe one, unless forced by hunger. We should therefore infer from the natural habits of the hog, that if we wish to obtain the greatest thrift from him when feeding on apples, it is best to feed him partly with those which are sweet, and partly with those which may be called subacid.

When hogs or cattle are being fed principally on grain their appetite, health and thrift, will be found much improved by a small allowance of raw apples, occasionally. As a regular food for hogs, the value of apples is undoubtedly much improved by cooking, either by steaming or boiling. If they are to be fed by themselves, steaming is probably best. But it is believed that the most judicious way is to boil or stew them thoroughly, and mix with them while hot, a portion of meal. This checks the laxative nature of the apple, imparts additional value, and causes the food to be retained in the stomach and intestines a sufficient length of time for the whole nutriment to be extracted. The meal may be made from Indian corn, rye, barley, buckwheat or oats and peas. We think we have never seen hogs fatten faster, than when fed on the following kinds and proportions of food, viz: a bushel of potatoes and a bushel of apples boiled together, and when sufficiently soft, a peck of oat and pea meal stirred into them, having the mixture when cold, about the consistency of good stiff mush, or "hasty pudding." The pork was solid, sweet and good. Some experiments made several years since by Payne Wingate, Esq. of Hallowell, Maine, a very close and accurate observer, showed that apples were worth more than potatoes for fattening hogs, especially when both were cooked and mixed with an equal portion of meal. Apples are also excellent for cattle. We have repeatedly witnessed their effects in the thrift and smoothness of the coats of cattle to which they were fed at the rate of about a peck per day, during the winter. Fed regularly, in this quantity, they increase the quantity and richness of the milk of cows, while the condition of the animal is likewise improved.

It is the opinion of some very judicious farmers, that a given quantity of ground will afford more nutriment for any kind of stock, when appropriated to apple trees, than when devoted to any other crop. Our own experience inclines us to favor this conclusion, and we think our friends, who for the promotion of temperance, have cut down their orchards, have shown a "zeal not according to knowledge." They seemed not to be aware that the same substances which produced the deleterious effects that they desired to avoid, might be converted into wholesome and substantial articles of human sustenance.

CEMENT FOR GLASS WARE.

Cover the broken edges with a thin coat of common white-lead paint, and then pass a cord round the glass article or vessel, to bind the parts closely together. In a few weeks it will become perfectly dry, and will be found to have adhered very firmly together. Tried by the writer, and known to be good. J.

PLANK ROADS.

GEORGE GEDDES, Esq. of Camillus, N. Y., has visited Canada for the purpose of examining the plank roads there. From his report, we gather the following. On the great road from Toronto to Kingston, there is 14 miles of planks. They were laid eight years ago—16 feet long and 3 inches thick, on 4 sills, 4 inches square, fastened by one spike in each end of the plank. These planks are just worn out, and are now being replaced on the old sills, which are yet sound. A part of the road above alluded to, was McAdamized, and Mr. Geddes was informed by one of the commissioners, that the repair of the McAdamized part had cost $400 per year, while the planked part had required no repairs for eight years. Heretofore only one track has been used, by which the planks have been worn out in the middle, while the ends are sound. It is now proposed to lay two tracks, 8 feet wide and 4 feet apart, which will obviate the inconvenience of meeting teams or carriages on the same track. Large loads are carried on these roads—a single pair of horses haul three cords of pine wood at a load—and they are the most agreeable roads to ride on imaginable.

The experiment of plank roads has been fully tried, and the success has been such, that in Canada West, four are now building.

Mr. Geddes submits an estimate of two tracks, each 8 feet wide, made of 3 inch hemlock plank, and sills 4 inches thick and 6 inches deep, estimating the price of the lumber at $5. per M. delivered on the track, and the necessary grading, based upon the contract prices in Canada, for the like work.

Estimate.

126,720 feet of plank per mile, at $5 M.....	$633 60
31,680 feet stringers, at $5 M.....	158 40
Laying down per mile,.....	272 00
	$1,064 00
For two tracks, double,.....	2,128 00
Ditching per mile,.....	160 00
	$2,288 00
Add 10 per cent,.....	228 00
	$2,516 00
For 10 miles, at $2,516 per mile,.....	25,160 00
Three gate houses, at $300 each,.....	900 00
Engineering, say,.....	500 00
	$26,560 00

Mr. Geddes has no doubt that where lumber can be had at these prices, plank roads are to be preferred to any other kind.

ANALYSIS OF SOILS.

Every farmer should have an understanding of the nature of the soil he cultivates, of its constituents and their proportions, as else he may add that which is of little use, and withhold that which is most essential. The most material parts of soils are sand, clay and lime. All are essential to a good soil, though the last is much more sparingly distributed by nature than the first, and some plants are found to flourish in that in which no trace of lime can be discovered. Some of the most fruitful soils on the globe, such as the alluvial of the Nile or the Mississippi, contain but two or three per cent of it. In ordinary soils, however, one per cent is one pound to the cubic foot, which would give ten and a half tons to every six inches of depth in soil on an acre. From the quantity of the earths found in the cereal grains, and particularly lime in some of its forms, it seems probable that where it exists in but small quantities, and no immediate source of supply is at hand, that substance may be exhausted by constant cropping, at least to such an extent as to render the perfection of such grains impossible. It would appear necessary then by analysis of the soil to determine whether any of the matters essential to vegetation are absent, that they may be supplied. We have in former volumes of the Cultivator, given distinct modes of analysis, but the one adopted by Dr. Jackson, appears to be very complete in its results, (though perhaps partaking too much of the chemist's laboratory for the common farmer,) and we copy his process as given in the Geological Report of Rhode Island. The analysis was of the soil from the valley of the Nile.

"One hundred grains of the soil dried at 300 deg. Fahrenheit lost 7.05 grains. Its vegetable matter was then burned out in a platina crucible, and the loss was 6.90 grains. The soil was then mixed with four times its weight of potash, and was fused at a full red heat in the platina crucible, so as to render the whole soluble in water. The mass was then dissolved out from the crucible by means of boiling water, and was acidulated with muriatic acid, and then evaporated to dryness, so as to render the silica insoluble. The whole mass was then rubbed to a fine powder with an agate pestle, and moistened with muriatic acid. Then all the matters soluble in acidulated water were taken up by means of distilled water. The whole was then poured on a double filter, and the silex was collected, washed till pure, dried and ignited; the second filter being burned and counterpoised against it. The silex, weighed while warm, amounted to 47.39 grains. The solution that had passed the filter was then treated with a little nitric acid, and boiled to per-oxidize the iron. Ammonia then being added in slight excess, the aluminæ and per-oxide of iron precipitated together, and were collected, washed thoroughly for several days with boiling water, until the water came through the filter pure. The alumina and per-oxide were then separated by means of a boiling solution of pure potash, in a silver crucible. When all the alumina was taken up by the potash, and the iron had subsided, it was filtered in a double filter, and the per-oxide being collected, washed, dried, ignited and weighed, amounted to 11.20 grains. The alumina was separated by neutralizing the alkaline solution, and was then precipitated by means of a solution of carbonate of ammonia. When collected on a filter, washed, dried, ignited and weighed, it amounted to 32.10 grains. The solution from which the alumina and iron had been separated, was then treated with a solution of oxalate of ammonia, and the brine was precipitated in the state of an oxalate, and when collected, washed, dried, ignited and converted into a carbonate, weighed 2.85 grains. The solution remaining being treated for magnesia, gave no trace, but a little manganese was detected by hydro-sulphate of ammonia."

The soil of the Nile then, (and this method of analysis is applicable to all other soils,) contains in 100 parts of dry soil—

Vegetable matter,.....	6.90
Silex, ...	47.39
Alumina, ...	32.10
Per-oxide of iron,.....	11.20
Phosphate and crenate of lime,....	2.62
	99.61

For further examples of the analysis of soils from some of the best farms in New-England, from Batavia, Africa, Cuba, New-Orleans, &c. we must refer to the Report itself, which on this point is one of the most instructive that has yet been presented to the American public. We are not of the number who imagine that lime applied to *poor soils* will give them fertility; but we have reason to believe that although in a soil destitute of lime in any of its forms, manures will produce a great growth of plants, wheat for instance, yet the stalk will be flexible, the grain likely to lodge, and the berry light and worthless, without the presence in some form of this necessary earth.

TO KILL CROWS.—A writer in an English paper says, "a short time ago a farmer took a quantity of corn (grain) and steeped it in arsenic, and placed it in different parts of the field, to see whether the rooks (crows) would eat it or not. They soon carried it off, and they were found dead many miles from the place where they had got it, and the man was of course troubled with them no more."

AGRICULTURE AND HUSBANDRY OF THE SOUTH.

We are furnished by the last number of the Southern Agriculturist, with a most excellent Address on the Agriculture and Husbandry of the South, delivered by Gen. JAMES HAMILTON, at the formation of an Ag. Society at Fort Mitchell, Russell Co. Alabama, on the 4th July last. The author evinces a thorough acquaintance with agriculture in general, and particularly with that of the region of country for which his remarks are especially designed. We cannot doubt that such addresses as this, in connexion with the spirited and praiseworthy exertions of many enterprising citizens of the South, will exert a most salutary influence in the improvement of agriculture.

We present our readers below with several extracts from Gen. Hamilton's Address. The handsome tribute therein paid to our friend Dr. N. B. CLOUD, we have no doubt is well deserved, and we heartily rejoice that his labors in endeavoring to introduce a new and vastly more profitable mode of cultivating the great staple of our southern neighbors, are beginning to be properly appreciated:

"I think it may be assumed as a postulate, that about as much cotton is produced now as can be gathered, but I am equally certain by the improved mode of manured and checked culture, that half the land now in cultivation will give the same return. In other words, I believe five hundred acres of cotton in the new mode of its cultivation, will produce as much as a thousand in the old. In order to embark in this recently recommended culture, it is admitted that a large and accumulating stock of manure is necessary. It is however to be remembered, the seed of one crop will nearly manure one-half of the succeeding one, by resorting to the check culture, and by carefully littering and stabling our working animals and stock the whole year round, an amount of compost to manure the other half may be made. But after all, the great magazine for restoration and improvement of our soils, is at our own doors, through the region of country we occupy. Marl constitutes a never failing source of renovation. It renders porous soils more compact, and clay soils more friable, and is the most powerful agent yet discovered for decomposing vegetable matter, and converting it at once into manure. It is in this last particular it performs its most beneficial office. It has been found equally as fertilizing to cotton as to any of the cereal or root crops. Virginia has been renovated by its use. It has checked emigration in that State, doubled the product of the counties in which it has been used, and very nearly increased the price of farms in the same ratio. Yet the marl in Virginia does not average more than 60 per cent of the carbonate of lime, its constituent element of usefulness, whilst the marl of Georgia and Alabama reaches nearly 90 per cent—a vast difference in our favor. Let every farmer commence at once a search for that valuable mine on his farm. It is easily detected by its brown and greenish incrustation, in which are imbedded small fragments of sea-shells."

"In many parts of South Carolina where marl has been applied, the cotton crops have been nearly if not entirely duplicated, and although our soils are less worn than hers, it behooves us at once to commence a resort to this great mine of agricultural wealth. It ought at once to constitute an object of our Society, to obtain detailed instructions for its use and application. It is not, however, alone by the use of manures, that our cotton crops are to be increased—the great elements of solar light and heat are no less essential. Hence our cotton rows ought invariably to run south and north, that not only the least amount of shade should be cast on the plant, but that as our winds prevail in the summer months, the highest amount of atmospherical nourishment may be given to the plant. The necessity of this will be manifest, when it is recollected how much atmospherical nutrition the cotton derives from absorbents of its redundant foliage. I believe moreover, after the full moon in July, the perpendicular stem of all cotton over four feet and a half high, should be topped, and the two or three of the long lateral branches on the full moon in August. I am satisfied that in rank and wet seasons, we should make at least one-third more to the acre by adopting this process."

"By this improved mode of culture, through the instrumentality of a system of manuring, I believe, we may make one acre produce as much as two by the old denuded process, by which we take every thing from the soil and return nothing to it. The consequences to our operatives from this mode of cultivation, by which we give to one acre the productive energies of two, are of inestimable consideration. First, one half of the horses and mules which we now use to go over an immense space of imperfectly cultivated soil, may be dispensed with, or used for the garden cultivation of a diminished number of acres. Secondly, to our slaves how greatly will the burthen be lightened, by tilling one-half of the quantity of land, yet in the end having a harvest equally or perhaps even more abundant to gather? To say nothing of the increased facility of the harvest itself, by pulling two thousand pounds of seed cotton on one acre, instead of one."

"At the Bend, I have this year planted in the check, twelve hundred acres of cotton, six hundred I have manured, the other six are planted in the first rise of the swamp, in a rich alluvium of untouched fertility requiring at present no manure. Two hundred acres of the former, on the second level of the swamp, are on a stiff clay flat. The cotton was planted in this field on the 1st of May. It did not receive a drop of rain until the first week in June. The consequence has been, that I have encountered incredible difficulty in obtaining a stand; some of the land was re-planted five times, and none less than three. It was not until the 10th of June, by unremitted efforts, I at last succeeded in setting the crop in this field. I advert to this miscarriage for the purpose of indicating its remedy, to wit:—of giving a deep winter close furrow plowing, to all the lands you design for the check culture, and harrowing them early in the spring before you check off, after they have been rendered friable by the winter rains and frost, and another spring plowing. I believe I might have thrown up and abandoned these two hundred acres, and still that at the first level of the Bend, I will make more cotton, from present appearances, than my whole force can gather between the 15th of August and 15th of January, from manuring and adopting the check, and discarding the drill culture. On my first level, I have checked five feet by four, and on the second level four feet square. I believe, however, five feet by three in the most fertile soils, and four by three in those of less richness, will be the right distance."

"My corn on Cantey's fraction, which I think the richest piece of high river bottom I have seen this side of the Brasos and Colorado, I have planted in squares of three feet, and thinned to a single stalk. It is the best eared corn on my place, and will average, if no disaster occurs, nearly two ears to the stalk."

"In noticing the check culture, I should be singularly unmindful of the claims of an individual who has most successfully directed the public attention to it, if I did not pay a willing tribute to the intelligence and ability with which he has illustrated the philosophy on which it rests. You will understand, gentlemen, that I can allude to no one but Dr. CLOUD, of Macon county, who by his careful analysis and induction of facts, has done much I believe to diminish the labor and augment the product of the cotton crop of the United States. That his theory rests on the true philosophy of the plant, I entertain as little doubt, as I do that its introduction will mark a new era in the culture of our beneficent staple. You will permit me to remark, that this system of manuring and planting in the check, takes off half the tax on our lands, by allowing us to fallow half, or enables us to double our product in provisions and stock, if desirable. Indeed, a system of steady and efficient manuring, combined with an alternation of our crops, and of fallowing the most exhausted of our soils, constitute the best recipe for renovating an old country and preventing a new one from growing old."

Pick carefully all winter apples for sale and for use, and save all other apples for pigs and other farm stock, for which they will be found very valuable in winter.

APPLE-TREE BORER.

In most of the older settled parts of our country, the owners of apple orchards are aware that their trees are frequently attacked, and much damaged, if not destroyed, by insects which perforate the bark of the tree, and penetrating the wood, destroy the circulation of the sap, and thus effect great mischief. The history of this insect, called the apple tree borer, has been involved in much uncertainty, and even now there are some perhaps unessential points not fully elucidated; but the main things, the appearance of the insect itself, the time of its depositing its eggs, and the way in which the evils they occasion may be remedied, may we think be considered as very well settled. Dr. HARRIS, the well known able entomologist of Mass. led the way in this investigation; but we think, so far as the practical results are concerned, the greatest credit belongs to Mr. BUCKMINSTER, the veteran editor of the Plowman. By a long series of careful observation and experiments, he has arrived at the following conclusions:

Saperda bivittata—Apple-tree Borer.

"That the beetle, the parent of the grub or larvæ, (in which stage the mischief done by the insect is produced,) makes its appearance on the stage in June, and about the first of July, she is in the habit of making provision for her offspring. That she usually lays her eggs, ten in number, on the body of the tree, near the surface of the earth, and in this form, not larger than the head of a pin.

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"That the eggs are hatched out in a little more than eight days, when a white maggot appears. That the maggot or grub burrows in the bark of the tree, and proceeds no farther the first season. That during the second year he bores into the body of the tree, upward. That in the third year he is found up eight or ten inches higher than where he commenced; and that in June of the third year he or she comes out of the tree fully winged, when she is ready to lay more eggs."

Mr. Buckminster very well remarks that considerable allowance must be made for the time of the insect's depositing its eggs, as from observations made by himself and others, there are some ten or fifteen days difference between the first and the last of their appearing. Mr. Buckminster confidently recommends washing the apple trees about the time the eggs are deposited, or near the time of hatching, with lye strong enough to float an egg, as his experience shows that this application will kill the eggs and the young larvæ without injury to the tree. It would appear, however, from the papers of correspondents in Mr. Buckminster's Journal, as well as the other Mass. Ag. papers, that the application of lye has not in all cases prevented the attack of the borer.

We would suggest there may be several reasons for this. It is possible the application of the lye was made before the eggs were deposited, or the larvæ had proceeded from them; or it may have been delayed so long that the young borer had entered the bark so far as to prevent the wash from reaching him. It is also possible that the trees themselves contained larvæ in some of the stages of their existence, and as these would not be affected by the application of the lye, they would go on, form the perfect insect, and thus perpetuate the evil in spite of the single washing, even admitting that such washing with lye destroyed as we think it would, all the eggs and young grubs it touched. It is also possible the tree was not sufficiently scraped before washing, to remove all rough bark, as under such bark the eggs are frequently deposited; and if not removed by scraping the tree thoroughly, it might prevent in many instances the contact of the ley with the egg or the young. We think then, those whose orchards are infested with the borer, will do well to wash their trees with lye, first paying attention to the following things:—First, see that all grubs existing in the tree are thoroughly eradicated by cutting them out with a knife or narrow chisel, or destroying them with a flexible barbed wire. Second, see that the trees are thoroughly scraped before the wash is applied. Third, apply the lye wash twice in the season at such an interval as shall embrace all the eggs deposited, or the grubs hatched; and fourth, repeat the washings for two or three seasons, or until the insect has wholly disappeared. Washing with lye is one of the best applications for trees we have ever seen used, giving a smooth fine bark, and unusual vigor to the tree. It is possible that a heavy coat of whitewash, laid on after the scraping of the tree, might prevent the eggs from hatching, or hinder the beetle from depositing them, but we have no experiments to prove conclusively that such would be the result, and it is certain that neither whitewash or lye will affect the grub after it has once penetrated the tree, or prevent the emergence of the perfect insect. Insects are so injurious to fruit trees, that they deserve more attention than has yet been given them by the public, or by those best qualified for the task of observation, the men of science in our country.

LARD OIL.

This new article of manufacture, bids fair to be of incalculable benefit to the great pork-growing region of the west. Although it is only about three years since the making of oil from lard was commenced, it already to a very great extent supercedes the use of sperm oil. A great deal has been made, as was to have been expected, in the outset of the business of an inferior quality, which has been offered at a low price, and purchased on account of its cheapness. The poor quality of this oil, has led many to conclude that it cannot be made to answer in place of sperm oil. From a Cincinnati paper we learn that one firm in that city, manufactures 80 kegs of lard per day. The product in winter is one-third elaine and two-thirds stearine; in summer, the proportion is exactly the reverse. The oil thus manufactured is equal to 200 gallons per day. The value of the oil and stearine shipped from this single establishment during the last sixteen months, is over $100,000. In the pork season, oil is made directly from the hog.

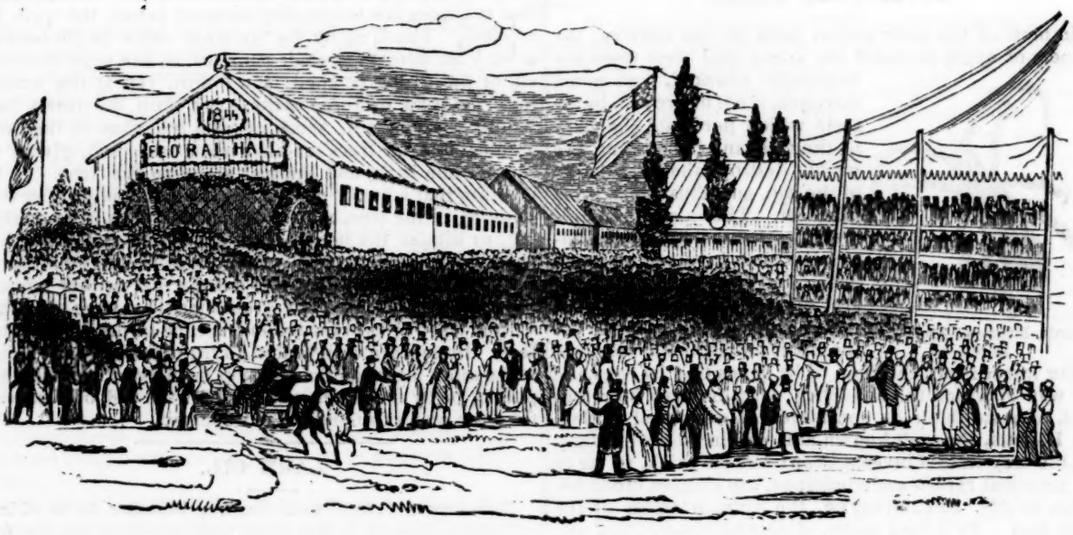
The paper referred to, states that before the manufacture of lard oil, sperm oil was sold at from $1.25 to $1.50, and that the corresponding qualities of lard oil can now be had at 50 to 62½ cents.

There is the same difference, and from the same cause, between summer and winter *lard* oils as in summer and winter *sperm* oils. The article made in summer holds more or less stearine in solution, which the access of cold weather readily detects, and renders necessary that the winter supply should be made as that season approaches.

Lard oil is made in Cincinnati in twenty-two establishments, which manufacture an aggregate of 600,000 gallons per annum, value at 50 cents, nearly one-third of a million of dollars. The value of the stearine and other residuum, must be at least as much more, these articles having steadily advanced in price since the introduction of the lard oil manufacture.

NEW GRAIN DRILL.

The *Argus*, published at Marietta, Pa., notices a machine for sowing grain, invented by Messrs. Haines and Kilburn. It is stated to have performed its work perfectly, though the ground was not in a very good state for sowing. It is described as follows:—"The manager of the drill stands upon the hind part of the machine, with a handle that reaches from the large wheel in front by which he is enabled to guide the machine. It sows the seed in drills nine inches apart, and five drills at a time. The seed passes from a hopper or box to the hollow teeth that open the ground, and the seed passing down directly behind, falls in the furrow, and the dirt falling back directly upon the seed, and a roller following, presses the seed in. The depth of the planting can be varied by simply turning a screw. The teeth are fixed in pieces of scantling, which are separate from each other, that they may follow the unevenness of the ground, and so plant the seed at a regular depth in the ground." The price is $50.



VIEW OF THE NEW-YORK STATE CATTLE SHOW.—Fig. 90.

THE STATE FAIR AT POUGHKEEPSIE.

Another great State Fair and Cattle Show, with its attendant and innumerable objects of interest to the enlightened agriculturist, its superb assemblage of striking products which every tributary of the great flood of agricultural improvement had poured, in their concentrated vastness, to this spot, its congregated myriads of people, brought together by the thrilling interest which ever clusters around this great art of the arts of Peace,—has taken place, and passed away. Few or none of the many who have attended from all parts of the State and from other States, can ever regret the pains they have taken to witness the exhibition, and its truly noble scenes and magnificent display.

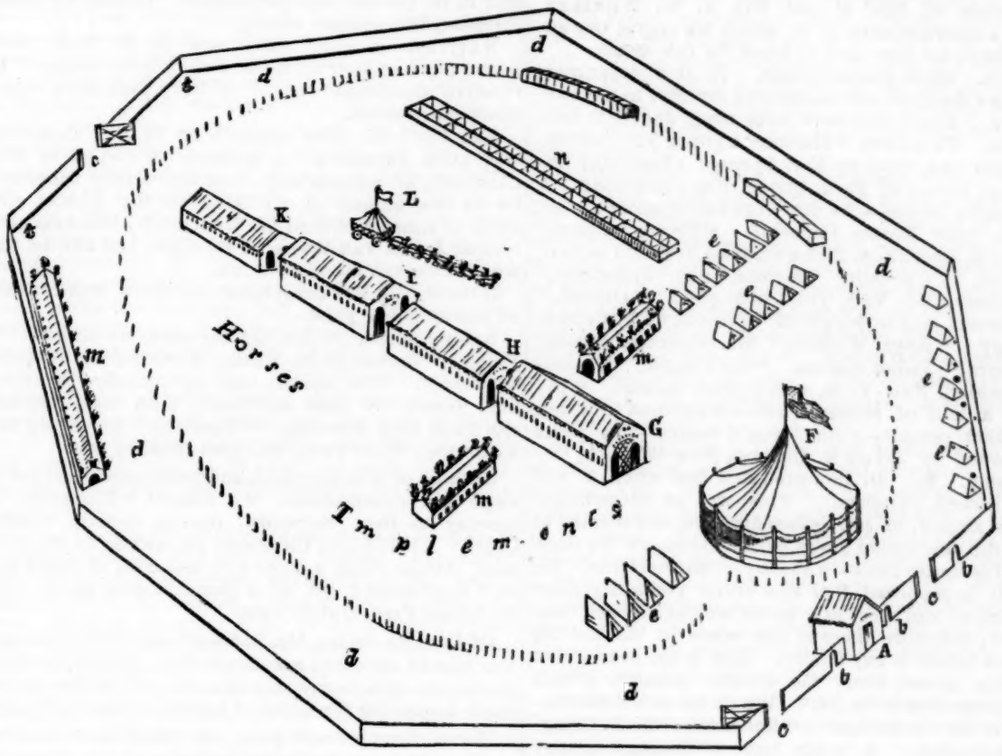
The ground selected for the occasion was an elevated plain, commanding extensive views of the surrounding country, to which the mountains in the west, and the blue ranges of the distant Highlands, gave a varied outline and interest scarcely to be surpassed. A large field of ten acres was enclosed by a high fence, within which all the objects of the fair were collected. The number of people admitted to the grounds on the two days of the exhibition is supposed to be not less than from twenty-five to thirty thousand.

A line of large buildings, erected for the purpose, extended for several hundred feet through the center of the grounds, and formed a leading feature of attraction. The first, which was 36 feet wide and more than 100 long, was inscribed over the entrance, "FLORAL HALL," in rich letters of evergreen on a white ground. The whole interior of the building, as well as the entrances, was richly ornamented overhead with beautiful and massive wreaths and festoons of evergreen. In the centre of the building was a splendid outline Temple "Dedicated to Agriculture and the Arts," consisting of a high evergreen arch in the middle, interwoven with flowers, flanked with square wings, equally tasteful, on the sides. In the center and surmounting the whole was the inscription "AGRICULTURE," and the numerous articles arranged within this arch, were the appropriate details of the great leading subject, among which were the tall lance-like stalks of corn crossing the middle, the suspended heads of wheat and other grain, the paintings of domestic animals, and a large assemblage of other articles, beneath the whole of which was a beautifully ornamented miniature plow, the origin and foundation of the whole. Under "MANUFACTURES," were collected specimens of fabrics, domestic silks, and numerous others of an appropriate character. Under the chaplet inscribed "HORTICULTURE," was a most interesting exhibition of rich fruits and brilliant flowers. Numerous tasteful emblems and inscriptions were interspersed through the whole, and with some fine ornamental figures, decorated the base. The whole of this outline temple, which contained thousands of appropriate specimens, and which occupied a space of 26 feet in length and 12 feet in height, was designed by ALEXANDER WALSH of Lansingburgh, to whose imaginative taste and unwearied labors, the public are very largely indebted for the interest and attractions of these extensive halls. We have a drawing of this Temple, an engraving from which we shall hereafter present to our readers.

A double line of tables extended through the center of this building, densely loaded with a magnificent display of fruits on either side, and a long range of flowers arranged in wreaths, temples and pyramids in the center. Among some of the best collections of fruits, were handsomely arranged specimens of a hundred fine varieties of apples, eighty of pears, and many of other fine fruits, from A. J. DOWNING & Co. of Newburgh, extending compactly for 40 feet along one side of the table; also extensive collections of apples from R. L. PELL of Ulster, J. R. COMSTOCK of Dutchess, J. F. OSBORN of Cayuga, ALEX. WALSH of Lansingburg, from his Hoosick farms, and large and fine collections of pears from JAMES G. KING, Highwood, N. J., J. R. COMSTOCK, WM. REID of Murray Hill, N. Y., and also excellent specimens of grapes from R. DONALDSON, J. MERRITT, S. VAN RENSSELAER, and many others. The whole display of fruits, though defective in a few particulars, exceeded in variety and extent that of any previous exhibition of the State Society.

The vegetables, suspended from the sides of the tables and beneath, presented a very fine array; among which was a superb lot from the garden of R. L. PELL, of Pelham, Ulster county, consisting of very large mangold wurtzels, true blood-beets, carrots, parsneps, sugar beets, Patagonian gourds, 5 feet 8 inches long, squashes weighing 152 and 200 lbs., monkey bread very curious, ten varieties of table squashes, cabbages weighing 30 lbs. Mr. P. also presented very beautiful samples of fine heavy wheat, rye, oats, buckwheat, Egyptian corn and wheat, Indian corn 17 feet high, yellow and white flint and sweet corn, 40 varieties of seedling and 27 of grafted apples, Catawba and Isabella grapes grown under glass, very large gooseberries, 3 kinds of currants, a floral ornament 17 feet high, shad from his fish ponds, &c. Some other collections also exhibited great excellence and skill in culture.

Among the Agricultural and Horticultural products, we observed an enormous pumpkin of the *seven years* variety, weighing 126 pounds—some heads of millet a foot in length—and some Washington peaches ten inches in



ISOMETRICAL VIEW OF THE ENCLOSED GROUNDS.—(Fig. 91.)

A. Business Office—b. b. b. Foot Entrances—c. c. c. Carriage Entrances—d. d. d. d. Carriage-way, with posts and sheds for cattle and horses within—e. e. e. e. Committee's Tents—F. Large Tent—G. Floral Hall—H. Ladies' Home—I. Manufacturer's Lodge—K. Farmer's Hall—L. Hyde Park Agricultural moving Temple—m. m. m. booths—n. Pens for Sheep and Swine.—Area, 10 acres.

circumference and weighing eleven ounces, all presented by Mrs. M. VASSER, of Poughkeepsie.

One of the most truly valuable and meritorious articles ever shown at any fair in this country, was a neat glass case containing 35 varieties of wheat; heads and shelled specimens of each variety, being arranged with great neatness in separate apartments of the case. A large portion of these were cultivated, and all arranged and presented by Gen. R. HARMON of Wheatland, Monroe co., whose labors in testing the various qualities of different sorts, have already proved of so much value to the agriculture of this country.

Numerous paintings of cattle, horses, and of rural scenes, decorated the walls on each side.

The second building, inscribed "LADIES' HOME," was enriched with a gorgeous display, consisting of a vast collection of articles of taste, splendor, and skill, among which were superb specimens of needlework on screens, coverlets, rugs, chairs, and in landscapes; temples of shell-work,—and hundreds of other things of great splendor. So fine indeed was this display of fancy productions, that we were almost led to question the propriety of thus eclipsing the more humble, but pre-eminently useful and substantial products also handsomely arranged here, among which were many excellent specimens of quilts and other articles of domestic use and comfort, conferring the highest credit on the truly worthy contributors.

The third building, entitled "MANUFACTURER'S LODGE," contained an excellent collection of fabrics, including a large assortment of cottons and mixtures from the Mattewan Company; a superb display of cloths, consisting of 62 different kinds, from the Middlesex Woolen Company, Lowell; fine carpets from the Thompsonville Company, and from C. M. Pelton, A. Ross, and others of Poughkeepsie. There were specimens of good solid-head pins, made by Mosely, Howard & Co. Poughkeepsie; and models of many useful domestic and rural contrivances and machines of great interest.

The fourth building, "FARMER'S HALL," was occupied with an exhibition of flour, salt, butter, cheese, sugar, and all coarse articles of domestic production, as well as cooking stoves, fanning mills, washing machines, &c.

These four buildings, being in one continuous line, and open at the ends, presented a vista 500 feet long, which, with the innumerable articles there exhibited, and the congregated thousands constantly passing through, gave an extraordinary interest to the scene.

One of the most truly magnificent objects of the kind ever seen, was the "FARMER'S CAR," from Hyde Park. This vehicle, from the nature and style of its decorations, might have been taken as the combined work of the most refined votaries of the divine trio, Ceres, Pomona and Flora. The body, or frame work, was 26 feet in length, by ten in breadth and twenty in height, covered with a magnificent canopy of evergreen festoons and wreaths, and presenting the form of a sylvan temple, the walls or sides of which were nearly one entire mass of vegetables, fruits, flowers, and farm productions generally, some of them of extraordinary size and excellence. The inside had the appearance of a bower, with rustic chairs, made of the grape vine, cedar and oak. These chairs were occupied by ladies and children, who from this cool and agreeable shelter, quietly viewed the surrounding scene. The car was drawn by ten yoke of superb oxen from Hyde Park, to which was awarded the premium for the best ten yoke from one town. The color of all was a deep red, with scarcely the variation of a shade—they were well matched in shape and size, and showed much Devon blood. When this splendid car, with its flying colors and coat of arms, first entered the grounds, like a moving miniature temple, among the thousands there assembled the effect and interest produced was almost electric, and several distinguished persons pronounced it as decidedly superior in design and display to any thing of the kind they had ever witnessed. It is no more than justice to say that the decorations of this beautiful Car, were designed by Mrs. D. B. FULLER, and arranged and executed under

the direction of Mrs. F. and Mrs. J. W. WHEELER. We had a drawing made of it, which we regret our engravers have not been able to finish for this month.

CATTLE. *Short-Horns.—Bulls.* In this department we believe the show was considered superior to any previous one. At any rate there were many excellent Durham bulls. We noticed "Marius," a young bull, twenty-one months old, bred by Earl Spencer (England,) imported and owned by Thos. Oliver, Esq., Sing-Sing. A very superior animal—the first from Earl Spencer's noted herd we have known imported. "Prince Albert," owned by R. Donaldson, Blithewood—a beautiful animal, 4 years old, 2110 pounds. "Meteor," and "Symmetry," own brothers, Geo. Vail, Troy, both good. "Osceola," two years old, said to weigh 2300 pounds, C. F. Crosby, West Troy. "Royal William," Mr. Ableman, Albany. "Hawthorn," James Mabett. "Sir Temple," Thomas Addis Emmett, New-York, a very pretty animal. "Orpheus," a bull of immense bulk—suppposed to weigh nearly 3000 pounds—girths 8 feet 6 inches—five years old. Owned by James R. Dickson, New Windsor, Orange county. Mr. D. imported this bull when a calf from Gainsford, (England). This was an exceedingly muscular animal, of prodigious quarters, and seemed to answer the description given by Middleton, of the once famous Teeswater cattle—a variety of Short-Horns. He says, "It is supposed that this breed yields a greater proportion of lean meat in a given weight of beef, than any other; therefore there is less waste of fat, and the meat goes farther in any family. This is the criterion of serviceable animal food; *the greatest quantity of lean meat in proportion to the fat.*" We do not admit the correctness of the "criterion." "Rotterdam," D. D. Campbell, Schenectady. A noble bull. "Trusty," a very well made bull, Wm. A. S. North, Duanesburgh. "Charles the 2d," a white bull which attracted much notice, J. Lenox, Dutchess county. "Sir Peter," Wm. Salisbury, Leeds, Greene county.

Of bull calves, there were several fine ones offered by C. N. Bement, Albany, Mr. Vail, Troy, L. S. Barnard, Platte-kill.

Cows. "Red Lady," (imported,) a cow of most superior symmetry and fineness, showing also good points for the dairy. Owned by Mr. James Lenox. Also several other cows by the same gentleman. Several cows, some of which showed good points, by J. F. Sheafe. A cow of Geo. Vail, showing remarkable milking properties. Also one by D. B. Fuller, Hyde Park.

Heifers. Mr. Prentice, Albany, sent several very superior heifers—particularly Esterville and Nell, which are "hard to beat." "Victoria," an excellent heifer, D. B. Fuller. Several fine heifers belonging to D. D. Campbell, Mr. Sheaf and Mr. Lenox.

HEREFORDS. The only specimens in this class, were eleven head from the capital herd of Messrs. Corning & Sotham, Albany. These were splendid animals. The two years old bull and bull calf, which were all of the masculine gender exhibited, were good—they had fine limbs—very capacious chests, round bodies, &c. Several of the cows were very extraordinary. "Perfection," is one of the most massive cows of her age to be found any where, and "Aston Beauty" and "Victoria," for beauty and finish, can scarcely be surpassed, if equalled. It is but justice to say, that no animals on the ground excited more praise than these.

DEVONS. We saw no bull in this class. L. F. Allen, Black-Rock, exhibited an excellent cow and bull calf. The cow was one of the best Devons we have seen. Mr. Lent, of Poughkeepsie, had also a good cow of this breed, remarkable for the richness of her milk and the fine quality and quantity of her butter. The Devons are a very valuable breed, and we hope to see them increased.

AYRSHIRES. Several good bulls—particularly "Sir William Wallace," presented by John Archibald, Montreal, Canada, and one owned by Joel Rathbone, Albany. Mr. Rathbone had also a beautiful cow and a fine bull calf of this breed. "Victoria," an Ayrshire, belonging to J. Lenox, was a fine cow.

GRADES. We noticed a very superior heifer, 20 months old, with a fine calf by her side, 6 weeks old, said to be Durham and Devonshire. Owned by Joseph Silkman, Westchester county.

NATIVES. A good dairy cow by Z. Pratt, Green county, and another by R. L. Pell, Ulster county. The "native Americans" ought to have been more numerously represented.

FAT CATTLE. The competition in this department was quite extensive. A Durham ox owned by D. D. Campbell, of Schenectady, was universally admitted to be the best animal of the kind on the ground. Mr. Swift of Amenia, Alfred M. Uunderhill, Dutchess county, and James Van Wyck, of Dutchess, had also fat oxen which attracted much attention.

HORSES. In this department, the show was considered uncommonly good.

Among horses of the lighter class, we noticed "Sir Painter," owned by E. Howe, North-Salem, Westchester county. This animal was distinguished by uncommon beauty of head and limb, with many marks of spirit and high breeding. "Florizel," belonging to C. F. Crosby, West-Troy, was well liked by many.

Of those of a larger class, and better calculated for carriage and coach-horses, we noticed "Diomede," belonging to Gen. Salisbury, Greene county; "Seneca Chief," a half-blood Cleveland bay owned by Mr. Ableman, Albany, and a three yrs. old colt, 16 hands high, by "Haphazard," out of a Hambletonian mare, owned by Albert Pray, Union-Vale.

Of *Draught-horses*, Mr. Sotham's imported "Sampson" was looked upon as a great *curiosity*. He is an animal of prodigious muscle and strength, and will be the means of much improving the breed of horses for heavy draught.

There were several pairs of beautiful *match-horses*, among which we particularly observed a pair of splendid bays belonging to Gen. Davis, of Poughkeepsie, another pair a shade lighter in color, belonging to Dr. J. P. Beekman, the President of the State Ag. Society, and a pair of sorrels belonging to Mr. Landon, of Albany.

WORKING OXEN. There were many fine cattle, (in appearance,) in this class, but we think there should be some mode of trying them at work. So far as we can judge, the want of some such test, was the greatest defect in all the regulations of the show. The value of a working ox, consists in his ability to perform labor, and to perform it in a proper manner. Before a proper decision can be made, it is necessary to have some *demonstration* of their discipline and power. The natural appearance of cattle may be ever so good, and in some of the most important requisites of working cattle, they may be totally deficient. Hence the obvious necessity of *proving* the faculties and strength of oxen, by a trial at *work*. We shall speak of this subject again, for we consider it one of great importance.

The fine team of Mr. Wadsworth, from Genesee co., consisting of ten yoke, was much admired—so also was that of the same number from Hyde Park. We noticed a pair of large size, and good form, 3-4ths Durham, from Luther Comstock, of Oneida county. Another pair by H. D. Grant, Amenia, half Devon. Another pair by Isaac Doughty, half Devon, from the stock of Mr. Hurlbut, Conn. These were bred by Mr. Thrall, who was present, and showed his superior faculty of educating oxen, and the susceptibility of *these* oxen to be educated, by making them perform all sorts of maneuvres, both in and out of the yoke, surrounded by a crowd of men. These cattle seemed capable of any degree of discipline; they appeared to understand every word of their driver, and were as prompt in obedience as a company of well trained soldiers.

PLOWING-MATCH. There was much less competition in this department than we expected, and the manner in which those engaged in it performed their work, was, with a few exceptions, any thing but what it should have been. There were only nine teams engaged. The great fault in the work, arose from a desire to do too much in a given time—the teams were not well disciplined, were too much hurried, and the furrows were crooked and turned too wide,—were too much broken, and left with too much grass in sight. The objections we have here enumerated would not, many of them, ap-

ply to the team entered by Wm. Worrell. The plow used by this team was made by H. Delano, of Onondaga county—the name of the plowman was James East. A yoke of brindle cattle, the lightest on the ground, was used, but they showed themselves perfectly adapted to their business. They wasted none of their strength in crowding each other or pulling apart, but threw their whole force directly and straight-forward into the yoke. The consequence was, they did their work easily to themsevles, and in a proper manner, without whipping or noise—they were no more worried than if they had been in their pasture. Other cattle of much larger size, and with more strength, (if they had known how to use it,) went puffing and blowing along with their tongues hanging out, before the work was half done. We have only been thus particular, to show the necessity of having the team, the plowman and the plow, adapted to each other, and all fitted to their work. We noticed one or two other teams which worked pretty well, and which had evidently good plowmen. Such was the case with the team of P. F. Proseus, Kinderhook, and Mr. Hallock. These were horse-teams. We have no doubt there will be an improvement in this department of the State Show in future years.

SHEEP. The show of sheep was good—in all the classes there was a spirited competition. Among *Long-wooled* breeds, we noticed fine bucks belonging to Mr. Dunn, Albany, L. D. Clift, Carmel, Putnam Co., E. Hallock, Milton, Dutchess county. A lot of fat wethers, (Cotswolds,) by J. C. Haviland—very good. Of ewes, we noticed five Bakewells or Leicesters, from Henry Mesier, Fishkill, showing very fine breeding, great beauty of head and eye, with carcasses of the most perfect symmetry, and very light bone and offal. Mr. Clift's ewes were also good, as were the ewes and lambs of Mr. Hallock.

South-Downs. Fine bucks from the flock of J. McD. McIntyre, Albany, D. B. Haight, Washington, Dutchess county, S. and J. Wait, Orange county. A most remarkable fat ewe from Mr. McIntyre, a perfect beauty, as well as several other good ewes from the same flock, and some very fine ones from the Messrs. Wait.

Saxons and Merinoes. Of these there was a large and generally good delegation. Of Saxons, there were good bucks and ewes from Chas. Hull, New Lebanon, Columbia county, W. Wakeman, North-East, A. Brown, and S. B. Crocker.

Of Merinoes, there were very good yearlings and lambs offered by H. S. Randall, Cortlandville, from the flock of S. W. Jewett, of Vermont, and Mr. Carpenter of Poughkeepsie.

There were some excellent Merino sheep from other states—particularly those from Jacob N. Blakeslee and Stephen Atwood, of Litchfield county, Connecticut. These were represented as purely of the Spanish blood imported by Col. Humphrey in 1802. They were splendid sheep, both as regards fleece and symmetry of carcass. Several bucks which were exhibited, have been sold, as we learn, to Mr. L. A. Morrell, of Tompkins county. We shall probably give some further particulars in regard to these sheep hereafter.

Messrs. Jewett, Sandford and Wright, of Vermont, also sent specimens of sheep from their well known flocks. They are generally strong constitutioned, with remarkably heavy fleeces in proportion to their size--the wool in general of medium fineness.

SWINE. Thos. F. Doughty, of Poughkeepsie, sent to the show one hog, 15 months old, weighing 610 pounds, and 6 pigs, five months old, whose aggregate weight was 900 pounds. Thos. Swift, Dutchess county, 6 fine pigs—white, though as he stated, with a *little* Berkshire blood—very good. Fourteen thrifty Berkshire pigs, D. B. Lent, Poughkeepsie. A pair of cross-bred Neapolitan and Chinese pigs, from C. N. Bement, Albany—very fine form and small boned—well calculated to give the nicest quality of meat. An enormous Berkshire boar, "Maximus," by "Reading," out of "Maxima," Benjamin H. Hart, Lagrange, Dutchess county. Also "Major," by the same owner. A mixed Berkshire and grass breed pig, W. A. S. North. Leicester boar, owned by John Wilkinson, Unionvale—a very good hog

POULTRY. Four splendid Chinese Geese, and some Poland fowls, were offered by H. Mesier, Dutchess Co. Some very fine Poland fowls by D. B. Fuller, of Hyde Park. These were comfortably *at home* in a cage at one end of the beautiful car before noticed, and showed their cheerfulness and contentment by frequently crowing. There was also Malay fowls, and some called the "Edam" breed, shown.

IMPLEMENTS. At the trial of plows which took place on Tuesday, there were some eight or ten different kinds. Mr. T. D. Burrall, of Geneva, had on the ground his shell-wheel plow, and one on the same pattern without the land side wheel. Mr. Chase, of Amsterdam, presented several plows of his make, which seemed to be made on very correct principles, and will no doubt do excellent work without great power to use them. H. Delano showed a very good plow. There were several others which we did not see tried. Mr. Bergen, and Messrs. Codding & Co., Rochester. Several from Isaac Tice, Poughkeepsie.

STRAW-CUTTERS. There were several of these machines, some of which we thought very good. Hovey's is well liked. Thos. P. Thorne, Fishkill, presented a straw and corn-stalk cutter. which worked well, especially for stalks. Price $25. Another very simple and excellent one was shown by J. C. Conklin, Peekskill. It is very simple and works well—price $18. Both these last named machines may be readily made to cut any desired length from a quarter of an inch to two inches. There were also cutters from George Smithson, Poughkeepsie, and A. A. Hall, Croton.

VEGETABLE CUTTERS from Adriance and Collar, Poughkeepsie. Smut Machines, Wm. Delaney, Canterbury, Orange county.

Fanning Mills, by I. T. Grant & Co. Schaghticoke, and D. Bryan, North East. *Hay and manure forks*—very superior, by Taylor, Buttolph & Co., West-Stockholm, St. Lawrence Co. *Horse powers*—Warren's—Wheeler & Brothers, Chatham, N. Y.—Arnold & Frost's—Allen's &c., seemed to work well. *A dog power*, for churning, &c., by Brewster & Drake, Hyde Park. A superior cart by John Wilkinson, Union Vale. A clover gathering machine, by B. H. Hart, Lagrange, and a clover cleaning machine, by the same. A model of *cow stables*, by Peter Van Vliet, Newburgh. The stalls are separate; the cow goes in, and a small door is then shut, which closes the stall. A superior smut machine, by W. G. Borland, Little Falls.

A very superior harrow, by George Geddes of Onondaga county; also one very similar, by John Wilkinson, Union Vale.

Gang Plows, for seeding—three shares in one frame; very neat, and from their appearance, might be supposed to work well, by Thos. Wiard, East-Avon. Several *plow cultivators*, B. Langdon & Co., Troy.

An improved revolving horse-rake. G. White, Middlefield, Otsego county. A horse-rake with iron teeth, made, we think, (we have lost the card,) by Wm. B. Stoddard, Cayuga county—said to work exceedingly well.

A model stump-machine. R. H. Hall, Owego. This is a very superior invention. We shall give a cut and description of it in a future number.

A model *clod-crushing roller* by T. D. Burrall, Geneva. This will prove a very useful implement.

Andrew Menely, West Troy, sent specimens of church bells. They attracted much attention. One of them had a very superior tone, and was particularly admired. Mr. M.'s bells are generally esteemed.

Excellent carriages were presented by John Wood, Poughkeepsie.

There were various cooking and other stoves. Those of Smith, Lockwood & Co., Troy, attracted much attention.

We deem it a matter of regret that there was no subsoil plow exhibited. We think the utility of these plows well proved in this country, as well as in England. The State Fair would have been a most favorable opportunity for demonstrating the advantages of this implement to farmers who are unacquainted with it.

Among the many distinguished strangers who honored

the society by their presence on this occasion, were the Hon. Adam Ferguson, and Mr. McDonald, of Canada; Dr. Smith and Col. Allston, of South Carolina; J. S. Skinner, esq., Assistant Post-master General, and the originator and former editor of the American Farmer, the first agricultural paper published in the Union; Mr. Gowan, of Philadelphia; Mr. Hambleton, of Maryland, Mr. Hall, of Virginia; Dr. Poole and Mr. Newbould, of New-Jersey; Mr. Terrill, of Georgia; Messrs. Whitney, Collins, Hurlburt and many others from Connecticut; Messrs. Jewett, Sandford, Wright, and others of Vermont.

On the afternoon of the second day of the exhibition, the officers and members of the society, with the thousands, both male and female, in attendance, assembled under the great tent to hear the annual address from George Bancroft, of Massachusetts. This address was such as might have been expected from this great American historian and writer. It was at once dignified, chaste, energetic and sublime. The chief object of the speaker, was not to enter into the details of practical agriculture, but to exhibit the dignity and importacne of this great art, in whose pursuits some of the most eminent statesmen of our country had exerted their powerful minds, and whose labors and influence in its advancement were eloquently described. After the address, the reports of the various awarding committees were read from the stand. A correct list of the premiums awarded will be found in this paper, page 325.

The admirable regulations, the excellent police arrangements, and the uniform good order which prevailed throughout the fair, from beginning to end, among the great mass of human beings on the grounds, confer the highest credit on the committee of arrangements, and citizens of Poughkeepsie generally, who have given an an example which should be held up for imitation wherever the future shows may be held. Indeed, the spirit, energy, liberality, and hospitality of the citizens of Poughkeepsie, so conspicuously exhibited at this Fair, will be long remembered by the tens of thousands of visitors, and by none more gratefully than by ourselves.

SUPPLEMENTARY NOTICES.

☞ The receipts at the State Fair amounted to about $3,650, from which very few expenses had to be paid; the citizens of Poughkeepsie and its vicinity, having raised by subscription, a sum sufficient to defray all the expenses incurred in fitting up the grounds, erecting buildings, &c., amounting to about $1,600. What other place will do the same next year?

The Committee on Discretionary Premiums say: Specimens of very superior fine wool in the fleece were presented by Dr. Beekman of Kinderhook, and Stephen B. Trowbridge, of Poughkeepsie. Alexander Walsh, Esq. of Lansingburgh, exhibited specimens of American Madder and Filberts. J. & E. Backus of No. 31, Bowery, New-York, a patent Steam Boiler, which the committee deemed a very useful article: not entered for Premium. J. Gurney, of New-York, beautiful specimens of Daguerreotypes. C. Chaffer, New-York, a mineral preparation for mending broken china, which appeared to be a valuable article. W. A. Folger, Poughkeepsie, two window shades—Thomas Reid, Po'keepsie, a superior sun dial.

Isaac W. Wood, Po'keepsie, exhibited two very large fowls—Mr. Verplanck, Fishkill Landing, a Malay fowl, very large and fine—Henry Mesier, four geese of China breed, and pairs of Poland and Bucks county fowls—these Geese are remarkable for layers and fine quality for the table; the mother of the geese shown, has laid nearly all winter, and has now the second brood of goslings raised this summer.

Several pictures were exhibited, painted by the pupils of Mr. Bartlett's Collegiate School, which were very creditable both to the pupils and their tutors. All were so well executed, that the committee will not venture to discriminate.

The great variety and excellence of the fruits and vegetables exhibited by Maurice Cunningham, gardener to R. L. Pell, Esq. cannot be too highly commended by the committee. None but those who witnessed the exhibition, can properly estimate it.

The Committee on Flowers say—A Harp and Cornucopia, designed by the Ladies of the Mansion Square Female Seminary, was one of the most interesting ornaments of Floral Hall. In addition several most beautiful specimens of Needlework were exhibited by the ladies of this Seminary.

A Hoop Garland by Miss Booram of Hyde Park—a standard of Cyprus vines and Dahlias, by Robert Kelly, Rhinebeck, and Wm. Horrack, Hyde Park, and very tastefully arranged boquets, by Mrs. T. L. Davies of Pokeepsie, and Mr. Langdon of Hyde Park, attracted much attention.

The following resolutions were adopted with a most hearty good will:

On motion of John A. King, of Queens, Resolved, That the thanks of this society be tendered to Mr. Bancroft, for his address, and that a committee be appointed to solicit a copy for publication.

On motion of Mr. Johnson, Resolved, That the thanks of the Society be most cordially tendered to Alexander Walsh, of Lansingburgh, for his unwearied efforts in preparing the Floral Hall with unexampled taste and ingenuity, and which contributed more than any other portion of the exhibition to the gratification of the thousands of ladies who were present at the fair.

On motion of B. P. Johnson, of Oneida. Resolved, That the thanks of the Society be presented to Mr. Joel Woodworth, of Watertown, Jefferson Co., for a splendid specimen of maple sugar exhibited by him and presented to the Society.

On motion of Henry O'Reilly, of Albany, Resolved, That the hearty thanks of the New-York State Agricultural Society are eminently due, and are hereby gratefully tendered, to the citizens of Poughkeepsie, including particularly their efficient Committee of Arrangements, for their liberality and hospitality, (unexampled on any previous occasion,) for receiving the thousands of friends of Agriculture, from other states as well as this, who were in attendance at the recent Anniversary Fair and Cattle Show of the State of New-York.

And be it further Resolved, That in evidence of our grateful appreciation of the efforts made by the committee and citizens of Poughkeepsie on this occasion, during all the transactions between them and the State Society during the months that have elapsed since their arrangements for the annual fair and cattle show were commenced, that a marquee be erected devoted to their special accommodation at the next Annual Fair, in whatever part of the State that fair may be held.

On motion of Thos. Hillhouse, of Watervliet, Resolved further, That the Corresponding Secretary be directed to enclose copies of these proceedings to the Committee of Arrangements on the part of the citizens of Poughkeepsie.

We tender our thanks to the Secretaries of the Society, B. P. Johnson, Esq. and H. O'Reilly, Esq. for the facilities they have rendered us in making out our account of the Fair, to whom also the thanks of the Society and the public are due, for their indefatigable and well directed labors in making and carrying out the arrangements for the Fair.

Orchards.—Daniel Leland, one of the most experienced and successful orchardists in Massachusetts, recommends (through the Boston Cultivator,) pruning in May. His reasons are, that at this time the sap begins to flow—the wounds are not dried by the wind, and the healing process soon commences, whereas if the pruning is done in March, the wound dries down a quarter of an inch or more, and it is a long time in healing. Mr. Leland is not in favor of pruning much at a later period in the season than May, though he thinks trees should be looked to in June, and any suckers that have started should be taken off. June is also a good time to take off dead limbs. Care should be taken to cut the limbs close to the body—a wound thus made six inches in diameter, will heal over in far less time than one of half the diameter that is cut two inches from the body.

THE LATE DR. SAMUEL L. MITCHILL

Of the city of New-York, and his labors in aid of Agriculture.—No. 4.

We concluded our third number with the title and some remarks on Dr. Mitchill's letter to the Rev. H. Muhlenberg, on "Septon," or azote and its compounds. This letter on Septon we may consider as a valuable essay on manures. After some introductory remarks on gypsum, and stating the fact that it was then (1796) "said to be found plentifully in Onondaga county," the author proceeds to remark,

"In my letter to Chancellor Livingston, of February 20th, 1796, an attempt was made to show that plants had the power of destroying pestilential fluids, and of rendering the atmosphere, which had been contaminated by them, healthy. It was stated that Septon (azote,) was taken up as a nutrient material, and retained in the vegetable economy; while the oxygen was discharged, and in company with caloric and light, renewed the respirable portion of the atmosphere. I shall now prosecute the inquiry a little further, and go into some practical details relative to this sort of manure."—(Trans. p. 246.)

"What I have to remark will be comprised under three heads: 1. That animal manures contain Septon, (azote.) 2. That plants nourished by such manures, contain it also; and 3. That hence may be derived a principle elucidating the use and operation of such manures."

"1. The whole history of decaying animal substances tends to prove the abundance of septic, (azotic, nitric,) ingredients they afford. The urine and excrements of neat cattle and sheep, the soakings of dung-hills, the earth of horse stables and cow houses, the soil of graves, and generally speaking, animal relics, and putrefying carcases of all kinds, afford every one of them, Septic (nitric) acid. This acid is composed of Septon, (azote) and oxygen. Water aids the formation of this acid, by promoting intestine motion among the decaying materials, and by its own decomposition furnishing any quantity of the principle of acidity which may be wanted. And when formed, water acts as a vehicle to convey and apply it to the various substances it meets with."—(p. 247.)

In this extract, Mr. Editor, we have the principles contained in what are considered, discoveries of the late Chemico-agricultural writers. According to their doctrines, as I understand them, a compost of manure, street dirt, or other mass of animal and vegetable substances, when undergoing fermentation and putrefaction, evolves numerous gases. The principal of these are carbonic acid gas and ammonia. Carbonic acid gas may be formed by the carbon of the dung heap uniting with the oxygen of the air, or the oxygen of water. Ammonia may be formed by the union of hydrogen and nitrogen (or azote, Dr. Mitchill's Septon.) In a compost heap, the hydrogen is produced by the heat of fermentation decomposing water, and the nitrogen or azote, either from the atmosphere or from the decomposition of azotized substances in the manure heap. Other gases may also be evolved, as by the union of carbon and hydrogen, we may have carburetted hydrogen, or if sulphur be present, sulphuretted hydrogen, &c.

These are all compatible with the theory of Dr. Mitchill, or the *doctrine of Septon*, as he was pleased to call it, in which it was his principal aim to show that fermentation progressing into the putrefactive state, produced nitrogen in abundance, or azote, which he termed Septon or Septic gas, and which acted injuriously on the human constitution, and favorably on vegetation. Alkaline substances arrested this and other deleterious gases, neutralized and rendered them harmless to animal life, while they did not impair their action as fertilizers. But I am anticipating too much; let the author of the "Doctrine of Septon," speak for himself.

"Septic substances, the offal of slaughtered animals, the refuse of house keeping, are when mingled in due quantity with the soil, justly ranked among the best fertilizers. The impregnation of land around houses and barns long occupied with such materials, is the acknowledged cause of its superior productiveness."—(p. 248.)

But it nevertheless sometimes happens, that in cellars, and around country dwellings, in pig-styes and cow-pens near the house, there are accumulated great quantities of excrementitious and corrupting substances, which if seasonably carted away, tend eminently to fertilize the fields, and promote the growth of vegetables, while at the same time by remaining, they render the house foul and unhealthy by the extrication of *septic vapors*. Neatness and elegance are thus found to be as conducive to good health as to good husbandry."

"When I see a farmer permit such unwholesome substances to collect around his habitation, I cannot help reflecting on the danger which awaits him. The manure which ought to have been carried away and spread over his lots, serves, as it lays, but to make his family sickly, to disable his laborers, and lead him to the dubious and expensive routine of physic."—(p. 249.)

"The street manure of cities consists of pretty much the same materials with the yard manure collected about farm-houses. Both are unhealthy, for a similar reason."

"If further proof was wanting of the real nature of these manures, it would be easy to state, that besides the affinity of septic compounds with water, they have a strong attraction for other bodies. With potash and soda, of which large quantities are daily poured into the streets with the soap-suds employed in washing, and from other sources, the septic acid forms the septite of potash, (common salt-petre,) and septite of soda, (cubic nitre.) With lime, which from measuring, carting and building, is sprinkled plentifully along the streets, as well as in the mortar of walls and the ceilings of rooms, it forms the septite of lime, (calcareous nitre,) and with clay it forms the septite of argil, (nitrate of alumine.")

"2. There will be no great difficulty in showing that Septon (azote,) is one of the component materials in certain vegetables. If it can be made evident what plants especially abound with it, we shall be furnished with a clue, leading us to the true use of the manures containing it. From an analysis of plants, we have become acquainted with several of their component parts, and thence are enabled to form some judgment concerning the qualities of the manure best adapted to such and such particular kinds. There is good reason to believe, that particular manures ought to contain ingredients of the same nature and quality with those which the plants so manured, are found by analysis to consist of. By proceeding in this manner, there can be rarely a mistake made in the application of manure. It is observable in the order of creation, that certain vegetable bodies approach more than others towards animal nature. The presence of Septon (azote) is the circumstance in the composition of organized beings, which particularly denotes animality or the approximation to it. Septic manures, being of animal derivation, ought therefore, if they entered into the constitution of plants, to make such as are nourished by them, take on somewhat of an animal nature. Let us now examine how this principle accords with facts. A familiar example may be taken from *wheat*. Wheat is most benefited by manures that contain Septon. *Street manure*, *door dirt*, and *well mixed barn-yard composts*, all of which abound with Septon, are among the best manures for that vegetable. And the efficacy of wood ashes in making ground capable of producing great crops of that grain, is probably owing, if modern conjecture be true, to the Septon (azote) composing a part of the alkali it contains. Some of the *swamp manures* will also produce good harvests of wheat; but others of them, though they cause a sufficient growth of straw, fail to fill the seed in the ear. The reason appears to be this: when swamp manures happen to be charged with the septic matters derived from animals, or from vegetable substances that approach toward animal nature, they will produce plentiful crops of wheat; but when they consist merely of decayed plants, they are incapable of elaborating the grain in the head. The cause of this can easily be investigated by attending to the analysis of wheat. Mr. Parmentier assures us of the presence of Septon in the *mucous* part of the meal; and he affirms, that the *glutinous* portion affords products quite similar to animal substances. If then the land upon which wheat grows, contains a scanty quantity of Septon, the seed will be poor and light in proportion to the deficiency of that article of food in the soil. Yet in this very ground, the

roots of turneps and radishes may thrive exceedingly; and so may other plants that do not employ Septon as an article of their diet."—(Trans. p. 252.)

Under the third head the author of the "Doctrine of Septon" further remarks,

"3. There now occurs an obvious explanation of one of the operations of lime as a manure, when mingled with dung and soil. The common opinion has been, that it promoted the putrefactive process of animal and vegetable matters, and thus made them more fit for absorption and nutrition. This may be the case, but there is yet another effect which has not been generally attended to. Calcareous earth combines with the septic acid into a septite of lime, (calcareous nitre) and thus becomes a very valuable manure; and at the same time, by its attractive power, it prevents the evaporation of that fluid in the form of pestilential steam. I believe likewise, it has a further use in retaining the septic substances longer on the land, and thereby lengthening out their fertilizing effect. Old walls and rubbish, abunding with septite of lime, frequently answer valuable purposes as manures. Lime in its simple state, destroys vegetation. Before it is fit to promote the growth of plants, it must be combined with some neutralizer. Its combination with carbonic acid, is the most frequent; but in dunghills and heaps of manure, a more common compound is formed with the septic (nitric) acid. By this connection, both the lime and the acid are deprived of their causticity, and preserved upon the land, a sufficient duration of time, to undergo that gradual decomposition, by the vegetable economy and other causes, which favors the production and growth of plants."—(Trans. p. 255.)

If my previous remarks, Mr. Editor, on the early agricultural essays of one of our countrymen, who was an excellent and learned chemist, and for a while a practical farmer, are agreeable to you and your readers, I may continue them, and quote from other essays of his, all showing what has been stated by your late associate, that some of the members of the old agricultural Society were "*before their age.*" RICHMOND.

SORRELL AND SOUR SOILS—*Errors Excepted.*

I was much amused a few days ago by an article in the American Farmer, credited to the American Agriculturist, by Wm. Partridge, criticising the scientific errors of Dr. Dana and Noyes Darling. Among these corrections, he says, "It is still more strange that Mr. Dana should prescribe lime as a cure for the growth of sorrel, when it exists in this place as an oxalate of lime, and could not grow in any soil unless lime was present." How ready we all are, and how able, too, to discover errors in *others*, and at the same time heed not our own. Now I have always been taught that oxalic acid exists in sorrel and oxalis only in combination with *potash*, in the form of oxalate of potash. I have also been taught, that by a careful evaporation of the juice of wood sorrel, (*Oxalis acetocella,*) or of common sorrel, (*Rumex acetosa,*) we obtain the binoxalate of potassa in chrystals. Hence it would seem, that potash, not lime, is necessary in a soil to produce either of the sorrels. Is it not a fair presumption that the poverty of the soil and not the absence of lime *permits* the growth of sorrel? If the ground be well limed and manured, and then seeded with wheat or other grain, would not the growth of the crop prevent the growth of the sorrel? I have no belief in the actual existence of *sour* soils; that is, soils with such a predominence of acid of any kind as to induce the growth of one plant and prevent that of others. We all know that sorrel and oxalises will grow in common garden soil most thriftily, even in the midst of all other kinds of plants, as can be at any time observed in the public gardens, where may be seen thousands of species of plants, native and exotic, all growing together in the most luxuriant manner. The fact appears to be, that the plants take from the soil, water and air, such matters as suit them, analyse and take from them the various elementary principles that constitute when combined, the various constituents of the plants themselves. That a plant takes an acid ready formed from the soil, I do not believe; but that it takes the elementary principles that constitute an acid, thence, and from water and air, I can readily conceive. For example, I often cultivate the *Cicer arietinum*, or Chick Pea, in my garden, for the pea is one of the most delicious vegetables I ever ate, amid all other kinds of vegetables. And yet the chick pea is the only vegetable known to possess oxalic acid in a perfectly free uncombined state. And yet on this same soil, I never saw a single plant of common sorrel, though the wood sorrel grows in it spontaneously and luxuriantly. This soil is heavily charged with lime. What is still more strange, if the doctrine of sour soils be correct, wormwood grows in the same soil with equal luxuriance; and we all know that wormwood will not grow in a soil where there is not abundance of potash. Can an acid and an alkali, especially those of oxalic and potash, intimately exist in the same soil, the one giving the character of a sour and the other that of an alkaline soil? True, it may be said that wormwood will take the potash, and sorrel the oxalic acid, each to themselves, and thus each thrive. But it surely cannot be called a sour soil. There is abundance of the *elements* of oxalic acid (*carbon* and *oxygen*) in the soil and air of all places, and it is just as likely, and rather more so, that the plants manufacture it (the acid,) for themselves, it being their nature to do so, than it is that they take it ready prepared from the soil. Now I shall feel obliged to Mr. Partridge for any correction he may think proper to make of the facts and reasonings put forth in this article. ACETOCELLA.

REFINING SALT FOR BUTTER, CURING MEAT, &c.

Would it not be an improvement in the domestic economy of farmers if they were all to adopt some simple method of purifying the salt they use in curing butter, meat, &c. I have often thought that the bad quality of butter is attributable almost as much to impurities in the salt as to any other cause. Let any one consult a practical chemist, or a good chemical book, and he will be informed that the *purest* salt of commerce contains small quantities of sulphate of magnesia and lime, nitrate of soda and muriate of magnesia. Rock and bay salt are the purest, but even these contain the above named impurities. The more common salt, that generally used in domestic economy, not only contains these but other impurities in considerable quantities; all which are well calculated to impair the effects of the salt for the purposes intended. A very little trouble and less expense will enable any farmer's wife to render the salt she uses perfectly pure. In the first place put a peck of salt into a large kettle with just clear rain water enough to dissolve it; boil it and skim off every particle of scum that rises to the surface. Then dissolve one ounce of carbonate of soda in four ounces of water, put it in the kettle and stir it well; then boil again for ten minutes, taking off all the scum that rises; then strain the brine through several folds of flannel. A considerable quantity of earthy matter will be found in the bottom of the kettle, and that is the cause of the impurity. After this straining, a small quantity of muriatic acid must be added to the brine to neutralize the soda; say half an ounce or so; then the brine is to be put back into the kettle and boiled again till it chrystalizes, or it may be put into a shallow wooden vessel and the water evaporated in the sun. Boiling is the quickest method. As soon as the salt is re-chrystalized, it should be washed by putting it in a clean basket, and throwing a bucket of perfectly pure water over it and letting it drain off rapidly; then dry it. In this way, salt perfectly pure may be obtained. I am aware that many people will say that the process is too troublesome; but let me suggest, that every kind of process for all kinds of objects, is troublesome, and that it is only because this is new or never before practiced by them, that it appears troublesome. It is true that it is more troublesome than it is to take the common salt as it is and use it; but then we propose a valuable object to be obtained by the process of purification, that is not attainable from the use of common salt. If it is troublesome, it pays well for itself in the increased excellence of the butter, &c., in which it is used. A high degree of purity may be attained by the above process, even if the carbonate of soda and muriatic acid be omitted, though not absolute purity; common salt will be rendered by it much purer than the best rock salt without the carbonate of soda and the acid. D

CHEMISTRY IN COMMON SCHOOLS.

Why not introduce the study of chemistry in all our common schools, at least the rudiments of chemistry, and especially the meaning of chemical terms? Why should not a boy, a farmer's boy, be taught the meaning of oxygen and hydrogen, as well as that of the word water? When he is now told by the papers or books he reads, that *water*, (the meaning of which term he understands very well,) is a fluid composed of certain proportions each of oxygen and hydrogen, (terms he knows nothing about,) he is at a loss. His education has left him with the idea that water is a simple element, as the ancients thought it was; and he also complains of the use of these hard words, when the fact is they are no harder than any other words to learn or to speak; but they are *new* to him, and thence he thinks them hard. All farmers should understand the rudiments of chemistry at least, and as much more as they can command; no one can be a good farmer without this knowledge, except by accident. It is in vain for writers on the subject, to try to use language that can be understood by those who have not learned the meaning of chemical terms. The word oxygen, for example, has no *common term* that would be understood more readily by such people, neither has hydrogen, nitrogen, carbon, &c. See what a list Webster makes in defining these terms. "*Oxygen*—in chemistry, oxygen or oxygen gas, is an *element* or substance so named from its property of generating acids; it is the respirable part of air, vital air, or the basis of it; it is called the acidifying principle, and the principle or support of combustion." "*Hydrogen*—in chemistry, a gas which constitutes one of the elements of water." "*Nitrogen*—the element of nitre; that which produces nitre; that element or component part of air which is called azote." "*Carbon*—pure charcoal; a simple body, black, brittle, light and inodorous." Now, what information will one who does not understand the rudiments of chemistry, derive from these definitions? None whatever. But if chemistry made a part of common education, all these terms would convey a meaning to the reader of them as readily as do those of water, atmospheric air, and charcoal. It is not supposed that the science at large could be taught in common schools; for if it could, there would be no necessity for high schools. All that is intended by these remarks, is to recommend that the meaning of all *chemical terms* should be there taught. For example, the school teacher should teach the scholars the meaning of the word water thus: *Water*, a compound fluid, the elements of which are by weight, eight parts oxygen, and one part hydrogen; by measure, one part oxygen and two parts hydrogen. Oxygen and hydrogen are gases; they are both colorless, having neither taste nor smell. Oxygen gas is heavier than atmospheric air, and it forms a portion of the air itself. It is essential to animal life and combustion. Hydrogen gas is the lightest of all gases, and hence is used in filling balloons; being about sixteen times lighter than oxygen. Now if such instruction was given in schools, there would be no complaint of the use by writers of hard names, hard words, &c.; and farmers would know just as well what was meant by the words calcareous earth, gypseous earth, &c., as they now do of the meaning of marl, plaster of Paris, &c. I can see no more reason in restricting the education of boys to the common place words of our language, in our common schools, than I do in confining them in their farming operations to the old common place routine of practice. Their education should be such as to fit them for the profession they are to follow, let that be what it may. Chemistry and botany are as essential elements of an agricultural education, as any others whatever. But how few are there amongst us who know even the meaning of the most common terms of either science? S.

Every farmer should supply his table with fresh meat from his poultry-yard, instead of the butcher's shambles. A butcher's bill presented once or twice a year, to be paid in cash, is a very annoying affair. With proper care it may be avoided as above. Some farmers dispose of their calves and lambs to the neighboring butcher, and thus square off his bill; but this is not a good plan.—*Farmer's Cabinet.*

STUDY ON THE FARM.

Messrs. Editors—More exercises of the mind, in observing and reflecting upon the course of nature and the processes of cultivation, would be of vast benefit to most farmers and to their sons. Some few among them do pass over their grounds and along the roads with their eyes open. They notice the adaptation of different crops to the different soils; they observe the effects of the different processes of cultivation. Such farmers find work for the mind as well as the body; they thus keep themselves bright and contented. The tediousness of hard labor is lessened by the activity of the mind. Nor is the good result confined to themselves alone. Their sons and their laborers catch the same spirit of observation and reflection, and thus they become intelligent and more efficient laborers. The sons are more contented with home and the farm. Where the various crops in the field are made matters of study, they possess an interest and a value distinct from the amount of money they may bring in. They become one's teachers; they give him lessons to be treasured up, and to be used. And it is those only who seek to learn and to profit by these lessons, which are furnished by the growing corn and fruits of various kinds, who really are intelligent and exemplary farmers. A few, by dint of unwearied toil from year to year, and by soul pinching parsimony, may get money, and this too, without observing any lessons, excepting a few brief ones, which were inculcated by others while they were young. But those who stick to the old way in every thing through thick and thin, and for no other reason than *because it is the old way*, are not good farmers; they are little more than brute laborers; who by dint of perseverance get some money, but get little else that is worth having. I am not ridiculing old ways, but only say they should be compared with new ones, before one can with any propriety maintain that they *certainly* must be the best. That the old are, in very many cases, the best, is undoubtedly true—that new ways are sometimes better than old, is also as undoubtedly true. And it is only by comparison that we can satisfy ourselves fairly and properly, which path will lead us most directly to the desired object. The matters upon which farmers, and good farmers, differ, are so numerous that no one can expect to settle them all for himself in one year, or even in one life. This to me is a matter of rejoicing, for every farmer may be assured that he can never exhaust his opportunities for learning something new. The pleasure of acquiring knowledge—and this is one of our highest pleasures—is always to be possible with the tiller of the soil. Books and papers upon agriculture are valuable; they give many correct general principles, and many useful hints, but they were not written with especial reference to the soil and subsoil of *your own farm;* and their teachings need modifications which your own experience and observations must point out. Thus, some of my brethren object to what they call "book learning;" therefore take no agricultural publication. But if we will use our experience and common sense in connexion with books and papers, we shall find them *valuable* aids.

I come to the point from which I ought to have started—that the *farm, your own farm*, is a place for study and observation, and that in order to learn with correctness and satisfaction, keep something like a regular journal in which your "book learning," and observations, should be noted down; then you can bring them to bear upon your future practice. Doubleyou.

Shoreham, Vt., July 26, 1844.

Rearing Peach Trees.—Mr. Allen W. Dodge, says in the Mass. Ploughman, that he prefers the following mode of planting peach stones:—"Deposit the stones, after being taken from the peach, in sand or dirt; put them in the ground, slightly covered, in the fall. As for the cotton bag in which to keep them under ground, I have never tried it, or any other covering but the ground itself. Take up the stones early in the spring, crack them, and plant immediately the meats or pits. In a week or ten days they will all be up, without fail, just as certain as so many peas or kernels of corn."

CUT WORM.

Errors in natural history may do much harm, and I conceive the one I am about to notice, is not an exception. James Corwin in the Boston Cultivator, noticing the remark of Mr. Ruffin, in his recent survey of South Carolina, "that cut worms in corn may be destroyed by continued tillage and a naked and open soil," remarks that "the cut worm would not be found in corn were it not planted in sward or sod land; they are the progeny of a species of beetle or other insects, which could never propagate its kind without the aid of dung, which is found in grass fields that have been fed by horses or cattle, and in this they enclose their egg or eggs and sink them a given distance below the surface," &c. &c. Mr. Corwin has mistaken the grub of the common beetle for that of the cut worm moth. The latter does not lay its eggs in dung, but in the ground. The cut worm is the caterpillar of a *moth* belonging to the lepidoptera and genus *Agrotis*. There are several species, the larvæ of which are injurious to various plants, cabbages, corn, &c. They confine themselves to no particular vegetable, but prefer young corn a few inches high. The *moths* fly only at night, lying concealed during the day under the bark of trees, in the chinks of fences, &c. The only effectual remedy that has yet been discovered, says Harris, in his excellent Treatise on insects injurious to vegetation, "is to go round the field every morning, open the earth at the foot of the plants, and you will not fail to find the worm at the root, within four inches. Kill him, and you will save not only the other plants of your field, but probably many thousands in future years." The reason, probably, why corn on a clover lay is more subject to cut worm than in any other preparation, is that the clover has been affording the insects excellent food and shelter for two years or more, and they have thus increased in numbers greatly beyond what they could have done in cultivated fields. It is believed that Mr. Ruffin is right in his remark, if he includes in his meaning of the words "continued tillage," the necessity of destroying every worm that can be found. But as the moth has wings and uses them freely at night, one farmer may destroy every cut worm in his land this year, and yet have an abundant supply in his fields next year, the parents of which have emigrated from his neighbors who were not so industrious. If every farmer would, however, adopt this means of getting rid of this formidable pest, then Mr. Ruffin's remedy, with the proposed addition, would certainly be effectual. The truth is, that we are all too inattentive to the destruction of insects at the commencement of their career. One minute's work in 1840 would have saved a week's labor of a dozen men in 1844. There is nothing easier than to catch and kill the first two or three insects that appear in a field or garden; but they are generally unheeded, because "two or three insects can do no harm;" they are permitted to lay their eggs. Next year there are several hundred of them, and even if one-half of these are caught and killed, (which will not often happen,) the other half will lay their eggs, and on the third year we shall have 50,000 or more, and then there will be work on hand to kill them. The depredations of the common caterpillar, for instance, can easily and certainly be prevented in this way, as the writer of this knows well from his own experience. In a garden full of shrubbery, every year this caterpillar makes its appearance, as an emigrant from the neighboring gardens; but it is a rule never to allow the first insect to escape. Each and all are destroyed as soon as they make their appearance, and consequently there is no multiplication of them by the 500 for one. C.

PRESERVATION OF MANURE.

An English paper recommends the application of a solution of common salt, (one pound to the gallon of water,) by means of a watering pot, to the floors of horse stables, before clearing the dung out, for the purpose of fixing the ammonia that is evolved from it. By this means, he says all the ammonia evolved will be converted into muriate of ammonia, and a portion of carbonate of soda formed, all which will be a valuable addition to the manure. A much easier, and as cheap a plan, is to spread ground plaster of Paris over the manure. Indeed this should always be done; all stable manure should be well mixed with plaster, that none of its valuable properties be allowed to evaporate. There is no one thing with which farmers generally are so careless as they are with manure. How common it is to see piles of horse dung under the stable windows outside, exposed to the washing of rain and bleaching of the sun for months together. If farmers will not or cannot keep their manures under cover, let them apply plaster of Paris as above, and at least prevent its valuable properties taking wing and flying away. Even then, however, the rain will dissolve much of the salts, and wash them away into the adjacent grounds. Why not take care of manure as well as any thing else? INDEX.

WHEAT-GROWING IN THE SOUTH.

Among the many intelligent southern planters whom it has been my lot to meet during their northern tour of summer recreation, was WILLIAM TERRILL, Esq. of Hancock Co. Georgia. I mention him particularly, from the satisfaction derived from his remarks on the wheat culture at the south, especially in the region where he resides. Conversing about the grain crops of this State, which he had carefully examined with the eye of an intelligent farmer, and after noticing particularly the laudable endeavors of General Harmon of Wheatland, (Vice President of the N. Y. State Agricultural Society,) in testing the qualities of various kinds of wheat for the purpose of designating the best qualities of *seed wheat*, Mr. Terrill remarked substantially that his own experiments in Georgia satisfied him that the wheat crop in that and other southern States may be made far more extensive and profitable than has generally been supposed. Mr. T. raised last year fifteen acres of a kind known in that region as "*Moore* wheat"—the variety being appropriately named after a worthy post-master in his neighborhood, who had taken the trouble a few years before to obtain specimens of such articles enclosed in letters from friends in other States, with a view of promoting agricultural improvement. The specimen from which this and other crops in his neighborhood were raised, was originally contained *in a letter* from Norfolk, Virginia, five or six years ago. The land was a reddish clay, manured with about twenty-five bushels of cotton seed, worth about six pence a bushel at the gin-house. The crop was sown on the 5th and 6th of October, and harvested on the 10th of May. The yield on a patch of about an acre, was at the rate of twenty-five bushels; and the average of the whole fifteen acres, was eighteen bushels per acre. The grain was plump, and measured in standard measure. The berry is yellowish, making a cream-colored flour that is much approved.

Mr. Terrill remarked, farther, that with his improved mode of cultivation, he has realized more wheat from these fifteen acres than he ever before raised from double that quantity of land—indeed, he has had smaller crops from more than twice the quantity of land.

These simple facts may induce others to "go and do likewise." What can be done by one intelligent planter or farmer, may be done by others.

Let us hear of many such experiments in all quarters of the south. Let the intelligent and reflecting planters, whose minds are well stored with facts bearing on the improvement of agriculture, apply those facts thoroughly in the management of their estates; and our word for it, they will find rich and pleasant harvests for their pockets and their minds, whatever may be the "prospects of cotton" or the "fate of the tariff."

N. B. We must not forget to state that an Agricultural Society was formed two or three years ago in Hancock county, which Society offers liberal premiums for the best crops of wheat, corn, and other kinds of grain, and from the labors of which much good may reasonably be anticipated. The example is worthy of imitation in every county, not of Georgia alone, but throughout the whole south. Nothing rejoices us more than to hear of such enterprising movements among our agricultural brethren in that "sunny clime." RHO.

TREES INJURED BY MICE, &c.

MESSRS. EDITORS—Seeing in your July number, a notice of fruit trees injured by mice, reminded me of a fact which may be worth communicating. A year ago last winter, I had five young apple trees girdled by rabbits, one of them having the whole bark gnawed off for a foot in length, and entirely around the tree. I wound around each tree a thick woolen cloth and tied it fast, thinking it might have some influence in preserving the life of the tree, though I had no expectations that the one injured most could be saved. All except one appeared in blossom last year, but bore no fruit. This year they are all covered with fruit, and appear very thrifty. On removing the cloths for examination a short time since, I found that the bark had grown considerably on each, though not sufficient to join the upper and lower parts. The tree most eaten, has no bark now on its body for the space of six inches, and yet has leaves and fruit. I suppose the cloths have afforded a medium of communication between the upper and lower bark for the sap, so as to preserve the life and promote the growth of the tree. Is not this fact worth remembering?

SQUASHES.—Having for some years had the most gratifying success in raising the Valparaiso squash, I take the liberty of recommending it to others, as on the whole, the most profitable winter squash with which I am acquainted. It grows very large, weighing frequently from 60 to 100 lbs.; yields abundantly, is delicious food both for man and beast, and will keep perfectly sound for a year, if kept dry and away from frost. In June last, having a wish for some *pumpkin* pies, I used the last of my winter's stock, and found them as sound and fresh as when gathered last fall; and I have no doubt they would have kept perfectly good till October.

CABBAGES.—If cabbages are set out near common field turneps or ruta bagas, the peculiarities of each are destroyed. The cabbages grow without heads and the turneps without bottoms. This I have learned by sad and repeated experience.

[Does the writer mean that cabbages and turneps intermix so as to produce the results he speaks of, the first season of their growth, or before blossoms are produced? The effects of intermixture through the blossom, are what they are here represented.—EDS.]

POULTRY.—The affairs of the poultry yard have, as usual, had a share of my attention the present season, and I am more and more impressed with the importance of this branch of rural economy. Wishing to raise as many Poland and Dorking chickens this year as I could, I purchased two dozen common hens to do the hatching, and let all of every breed set that would. Out of 21 that have set, there has been but one Poland hen; and this has been about the proportion that I have observed in former years. By selecting a few of the best of each kind to breed from, and keeping each lot by themselves, I think I can observe an improvement every year, both as to size and beauty of form; and if this plan were followed up for a series of years, it would result, I doubt not, in producing a finer stock of fowls than any we have at present in the country.

I have at various times tried experiments in crossing the different breeds of fowls, and the following are some of the results. The most beautiful *white top knots* are produced by a cross between a Poland cock, and a common white hen. The sub-variety known as the *Golden Poland*—having the body of a bright or reddish yellow, with a small black spot on each feather, and a crest of red or mixed colors—is the result of a cross between a Poland hen and a common red cock. Many of the chickens produced by these crosses will be parti-colored and of various plumage, but some will be of the character above described. I have a number of *five toed* or *Dorking top knots*, produced by a cross between a Dorking cock and a white top knot hen. Another variety described in some of the poultry books, viz: the perfectly white body with a black top knot, I have never seen, though I have made various unsuccessful experiments to produce it.

To obtain a cross of any particular description, it is necessary that the cock and hen should run together from 4 to 5 weeks, before the eggs are saved to be hatched; for all the eggs the hen lays in four weeks after being changed to a new cock, will partake of the character of the former cock.

The following treatment has resulted in keeping my fowls in a remarkably healthy state, and causing them to produce an abundance of eggs. Being under the necessity of keeping them shut up through the summer, I have each room supplied with a large box of dirt, sand and ashes, for them to roll in; a box of old lime mortar or plaster; a box of fine gravel from the lake shore, of which 20 fowls will eat a peck in four weeks; a feeding hopper containing always a supply of food, and fresh water supplied twice a day. For food, I prefer wheat when I can get it; and there being generally a supply here to be had for 20 to 25 cents per bushel—such as through various causes becomes wet in vessels and unfit to be ground—I use that through most of the year. Wheat contains so much lime, that it assists materially in the formation of shells, and causes fowls to lay better both winter and summer, than any other food with which I am acquainted.

Guinea hens, though very unprofitable, give variety to the music of the poultry yard, and I have kept them for some years. They make what Shakspeare calls a "musical discord," which is not disagreeable to my ear. They do not begin to lay till about June, and finish in August or September, producing an egg generally every other day. Their flesh when well fatted is most delicious, and I am determined to have mine all served up for the table before another winter. H. A. PARSONS.

Buffalo, Aug., 1844.

SEEDLESS APPLES.

Humbuggery and marvel are afloat again, with the story about "apples without seeds and cores," "half sour and half sweet," &c. These stories make a periodical advent about every five years. I well remember when a boy, (but I don't say how many scores of years ago that was,) a man came to our house to bottom chairs; and while he was busy with the split ash, he amused himself and his young listeners with all sorts of stories. Among others, he told us of an apple tree that he knew of "in York State, out west, in the Holland Purchase," that bore apples, one side of which was sweet as a Tallman Sweeting, the other as sour as a Rhode Island Greening; and that he could produce trees like it by a particular kind of grafting. After a good deal of coaxing, he consented to tell *me* all about it. It was simply to take a slip from a Tallman Sweeting tree and graft it, top end downwards, upon a Greening stock;" "and," says he, "*when it bears*, the apples will be half sour and half sweet." I was young *then*, (I did not say I am *old* now!) and therefore I lost no time in trying the experiment; not only did I try it once, but several times. None of the grafts grew, of course they did not bear fruit, and of course it was not "half sweet and half sour." I well remember the curious quizzical look my father gave me when he reminded me, that the chair-bottomer had said, "*when* it bears, the apples will be," &c. Now, I have only to say, in relation to the present story about bending down the top of a young tree and covering it with earth, and "*when* it takes root, cut the tree asunder, and thus stop the connexion with the natural roots of the tree," that WHEN "the young sprouts which spring from the top portion of the tree" "form a regular top," it WILL produce "fine fruit of a beautiful red," "good size," and "very pleasant apple," "without core or seed." It is of course unnecessary for us to ask those who believe such things, *how* the apple can be formed without the core! As well might we expect it to grow without the *stem*. A few years ago a man brought to our horticultural room a branch of a grape vine in a pot, with fruit on it, that he said he had made to grow in a flower pot, by burying the outer top end in the pot a few weeks, and then cut off the branch from the main vine. He wanted to *sell them*. Before the show was over, the vine *withered*, of course! S.

Pay great attention to the seeds you use.

PROFITS OF RAISING FINE FRUIT.

The great deficiency of excellent fruit in most parts of the northern States, is evident to every one who is acquainted with the finer varieties. It is believed if many of our farmers and others who own land, knew the actual profits which might be derived from orchards of the very best kinds, they would no longer hesitate in planting immediately, a large portion of their ground. Calculation on paper, I am aware, is not actual experience; but correct calculation from admitted facts, cannot be far wrong. Let us take a few examples.

APPLES FOR DOMESTIC ANIMALS.—Suppose one acre of land can be had for $50, which is high for the average of good land in this country; that 40 apple trees, which would place them two rods apart on the acre, may be had for 25 cents each, or $10 for the forty; and that $5 be paid for transplanting them, which would do the work well, placing them in holes six feet in diameter and well filled with mellow rich mold, and staking them well to prevent loosening by the wind. The crops obtained from the ground until they would arrive at a full bearing state would amply pay the interest on the whole cost, and cultivation and manuring. If well taken care of, and the soil kept mellow by hoed crops, they would bear abundantly in one-half the time usually required, and yield an average of at least five bushels to the tree—many would bear fifteen or twenty when the trees become large, if kept cultivated. Fed to hogs, the pork they would produce might be safely estimated at 12½ cents per bushel—a neighbor obtained about 500 lbs. of pork from 120 bushels. The estimate will then stand as follows:

1 acre of land,		$50
40 apple trees,		10
Transplanting,		5
Contingencies,		5
Whole cost of one acre of orchard,		$70
Five bushels per tree, 40 trees, 200 bushels; at 12½ cents,		$25
Deduct interest on $70,	$4.90	
And for gathering,	2.10	
		7
Clear annual profit per acre,		$18

WINTER APPLES FOR MARKET.—The average price of good winter apples for several years past in most parts of the State, has not been less than 25 cents per bushel; some late keepers are sold early in summer for triple that sum. An acre of trees, if well cultivated, would yield as already shown, not less than 200 bushels; allowing 5 cents per bushel for hand picking, which would be very liberal, if convenient ladders were at hand, and the estimate would stand thus:

200 bushels apples at 25 cents,	$50
Deduct 5 cents per bushel, picking,	10
Clear profit per acre,	$40

This estimate, it will be at once seen, is quite low, instances being frequent where more than double the amount is obtained. But four hundred dollars nett profit, as a yearly average from a ten acre field, is not to be despised.

EARLY PEACHES, if of the very finest of the early kinds, will bring in all our cities and larger villages, generally not less than two dollars per bushel; they have often brought four dollars. In most parts of this State adapted to their culture, the trees continue to bear under good care for many years, and will *average* at least one bushel to the tree. One hundred and fifty trees may stand on an acre; gathering and marketing would cost perhaps from ten to twenty-five cents per bushel; thus an acre would be worth as follows:

Cost of land and 150 trees at 20 cents each,	$80
Transplanting, &c. say,	20
	$100
150 bushels peaches at $2 per bushel,	$300
Deduct for interest, gathering and marketing, 25 cents per bushel,	82
Clear profit per acre,	$218

APRICOTS, which ripen from one to two months before such early peaches as are profitable for market, and are nearly as fine and delicious, bring still higher prices. An experienced fruit seller gives it as his opinion, that good apricots would bring any year, as fast as they could be sold, not less than $1 a peck, or $4 per bushel. An acre would easily contain 150 trees, and each tree would yield on an average one bushel of fruit, if well attended to. Such attention would consist in keeping the ground cultivated, and guarding against destruction by the curculio. The latter is to be either accomplished by yearly confining a sufficient number of pigs to eat all the fallen fruit, in which case crops would be precluded; or by daily jarring the insects on white sheets and destroying them. The following is an estimate of the expenses and profits:

Cost of land,		$50
150 trees at 37½ cents,		56
Transplanting, &c. say,		20
Cost of one acre,		$126
150 bushels, at $4 per bushel,		$600
Deduct interest on $126,	$8.82	
care from curculio,	10.00	
gathering and marketing,	75.00	
		$94
Clear profit per acre,		$506

A selection of the *best* and *most suitable* varieties of cherries and plums would give as profitable a crop, probably, as the apricot. These estimates may seem large, but they are much less than I have known on a smaller scale in case of cherries, plums and apricots, and also much less than I have known on a much larger scale in case of apples and peaches.

But every one who undertakes this business must remember that there is no "royal road" to the cultivation of fruit trees. Crowding the roots into a small hole in hard soil, suffering them, unstaked, to whip about by the wind, tearing them with the plow and scratching them with the harrow, and more than all else put together, allowing them to be overrun by grass and weeds, or smothered and stunted by crops of wheat, barley or corn; such treatment does not deserve success.

The best crops for the ground occupied by a young orchard, should be such as require a frequent use of the hoe, plow, or cultivator, and which are in no danger by a tall growth of shading the trees. Such are beans, carrots, potatoes, ruta bagas, beets, onions and pumpkins, but not sown crops.*

A selection of suitable varieties is also of the greatest consequence. Apples for stock should be of those varieties which are great and constant bearers. For market, they should be good bearers, handsome in appearance, of good flavor, and part of them long keepers. Peaches, cherries, &c. should be abundant bearers, of good quality, and as early as is practicable with those requisites.

J. J. T.

IMPORTATION OF MANURES INTO GREAT BRITAIN.—It was stated at a late meeting of the Agricultural Chemistry Association, that the following sums were paid for manures imported into England and Scotland, during the last year. For bone-dust, £91,755; rape cake and rape seed, £169,331; guano, (being the amount imported, not for the country at large, but to Liverpool alone, in one year,) £59,240; being a total of upwards of £320,000. It is also stated that there were 300 vessels engaged in the importation of guano.

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* A neighbor has a fine young orchard of peach trees, one-half of which is planted with potatoes, and the other half with peas—which are perhaps the most harmless of all sown crops; those standing among the potatoes, have made the present season more than double the growth of those on the pea ground.

REMARKS ON PEAT.

To PROF. JAMES HALL, *late Geologist of the Fourth District of the State of New-York:*

DEAR SIR—You were so kind as to answer my inquiries in the June number of the Cultivator, respecting phosphate of lime, that I am induced to reply to your communication in the August number of the same work, (p. 258.) My first was addressed to the geologists generally; but this I offer to you individually, hoping you will not take offence with an anonymous correspondent. You have satisfied me, and must others who read your letter in the Cultivator, that although there are several places in this State where the phosphates are found, yet they are not in sufficient quantity for agricultural purposes.

There is another article however, which yourself and associates in the late geological survey, have shown to exist in vast quantities, in all parts of the State, and easily accessible, forming reservoirs of a material, well adapted to promote fertility in such parts of the country, where cultivation has exhausted the soil, and rendered manures necessary. This article is *peat or muck*, the black sediment of ponds and swamps, and hollows in the woods, where the water is evaporated in summer. This material has been gradually coming into use, but of late it is attracting much attention by the husbandmen of Staten Island, as I intend to show.

In your letter to the Editors of the Cultivator, you remark that I spoke "*in a very complimentary manner of the labors of the geologists.*" It was not intended for flattery, but was the genuine sentiment of approval, of the geological survey, by a farmer who is not alone in appreciating what you and your associates have done. The immense resources of the State have been pointed out, and it remains for others to develop them for the benefit of the community.

Peat has been much used in Massachusetts, and its employment has slowly traveled into the adjoining State of Connecticut, where manure is much wanted. The "Muck Manual" of S. L. Dana has been the means of spreading information on the subject, and the reports of the Geologists of the State of New-York, have added to the information, showing clearly that there are mines of wealth for our farmers, lying on or near the surface, unexplored and unused in almost every part of the commonwealth. This is but one of the many benefits arising from the geological survey, and the reports of the scientific men who made the exploration in so short a time and with such credit to themselves and advantage to the State.

This small but productive island, has annually appropriated a large quantity of the street dirt from the city of New-York, as manure, but for several years past, produce of all kinds has been so low, that many are endeavoring to dispense with its use, and save the cash which has to be paid for it. But the farmers of Richmond county cannot raise crops without manure, and a liberal supply of it. Hence they have turned their attention to manufacture it from their own resources. Muck and sea-weed and fish and weeds and soil, composted with barn-yard and stable manure, and mud and sand and lime and potash, with other ingredients, form the basis, and enable the industrious man to furnish aliment to his crops from his own land, which is to produce food for his family, provender for his cattle, and a surplus for sale.

There is scarcely a farm in the county, that has not a pond, a swamp, a hollow or muck hole from which peat may be obtained by ditching and draining. The dry weather in August and September is the season for carting it out. If distant from the barn-yard or compost heap, it may be deposited in the immediate vicinity to be used as occasion requires, the farmer thus having it at his command, when the vernal and autumnal rains would prevent his digging it in its original place of deposit. It varies in its composition and consistency, from its relative situation, but all its varieties are good and capable of being converted into rich manure by proper management. In ponds liable to become dry in warm weather, the vegetable matter, by the alternate action of heat and moisture, is often decomposed and forms at the bottom a black mud, which on drying or exposure to frost, crumbles into a fine mold. When we find a pond in the woods which is dry in summer, the mud contains undecayed roots, leaves and twigs of trees from the annual supply of these materials from the surrounding trees. To reduce them to humus or mold, or in other words to a more perfect state of decomposition, it is necessary that they should undergo fermentation in combination with other vegetable and animal substances. In permanent ponds or such as are seldom or never dry, the muck is a mixture of the earthy wash of the uplands and parts of vegetables, wholly or partially decayed. Wet swamps covered with bog-grass and bushes also contain undecayed roots, leaves and twigs. When such ponds or swamps are drained, the vegetable matter undergoes a gradual change, and forms a deep and rich bed of black muck. In cleared land we sometimes find a repository of such material in low places, that have been drained and under cultivation for years. We would naturally suppose that under such circumstances the vegetable fibres of leaves, roots and stems of trees would be entirely decomposed, but it is not the case, except at a small distance beneath the surface, within the influence of summer heat and winter frost. Such spots of land are like the Genesee flats, or the alluvial soil of other streams, rich and inexhaustible, provided we can reach enough of the subsoil to mix with the surface, as it loses its power by cultivation. Though some such spots are found on this island they are not extensive, and they can only serve to enrich the surrounding fields by digging pits, and raising the muck to make compost.

Dr. Dana says that peat or muck, (I use the words synonymously,) consists of soluble and insoluble humus, the latter predominating. But soluble or insoluble, it may all be converted into a fertilizing ingredient for vegetation. (I don't like Dana's term *Geine*, because it is too technical, too learned, or too difficult to pronounce. Farmers who have been in the habit of reading the Cultivator, know what is meant by humus, and let us stick to that.) I will state some of the methods in which muck has been employed on this island.

Mr. William A. Seely has a large reservoir of muck from a pond or swamp which he has drained, and he has set us the example of the best methods of converting it into a fertilizer. He has a farm of more than two hundred acres, at the mouth of the Great Kills on the south side of the island. He has manured heavily, and made former waste fields productive, by means of peat; and they may now be seen smiling with heavy crops. For seven or eight years past he has purchased no manure, but has made all that his crops required, from the resources of his own farm. From his water front on Raritan bay, he collects large quantities of sea-weed, and in the autumn, after clearing his barn-yards of manure for his fall crops, he begins anew to manufacture this indispensible article, for the coming year, in the following manner.

The yard is first littered with a coat of sea-weed, and over that a layer of peat, then the accumulation of horse dung from the stable is spread over the peat. The contents of the hog pens are also occasionally strown over the yard, which in the course of the fall and winter receives several layers of peat. These, together with the hay, the straw and corn-stalk fodder dropped during the winter, are trodden and poached by the cattle, and mixed with their droppings, making a compound mass containing the elements of all our cultivated crops.

In the spring, when the frost is out of the ground, the coarse manure is accumulated in the yard, and saturated with its liquid contents, is carted out and piled into heaps three to five feet high, where it undergoes fermentation and in the course of four to six weeks, is converted into a finer mass, and fitted for the spring crops.

Mr. Seely has also made what are here called "*fish pies.*" In May and June when moosbonkers (Clupea menhaden) abound, they are caught in great numbers Alternate layers of peat and fish are made into a compost heap, and so left until the ensuing spring. I examined such a heap of his several years ago, after the fish were completely decomposed. The mass was inodorous, the peat having absorbed all the gaseous substances, and had become very fine and crumbly, and almost as light as a

heap of ashes. This method of making manure with peat and fish, is infinitely better than the nauseous one of spreading them broadcast when first taken. Mr. Seely used peat in making compost heaps, a number of years before others would follow suit. He even offered to give the farmers some of his peat manure, to try and test its virtues, but the offer was not accepted. Now, however, a change of opinion has taken place, and we are all (or at least a number of us,) trying to manufacture, that we may cease to buy manure.

I employ peat freely, spreading it over the barn-yard, throwing it into the hog pens, and mixing it with lime and potash and soil, and unleached ashes, green weeds, potatoe tops, sea-weed, &c. I have said that sand is an ingredient to manufacture manure. We who are on the sea-shore where sand is plenty, and where our soil is a stiff clay, find that sand alone aids in making it friable. In such soils a small portion in compost heaps is not amiss. Lime, or potash, or ashes, I believe if mixed with fresh dug peat, would absorb its acid, render it soluble and fit for use as a manure in a few weeks.

Mr. Cornelius McLean, a gentleman from New-York, has purchased the farm adjoining Mr. Seely, and is doing great things with muck, having found an abundant supply from a swamp which he has drained. He makes manure accordingly, and his crops show that they feel its effects, while his farm is rising from a state of neglect and exhaustion, to beauty and fertility. Mr. Chas. E. Leveridge, his neighbor, is also exploring his low grounds, ditching and carting muck to the "mixen."

About Princes Bay we find Mr. Joseph H. Seguine and others, digging out the muck from ponds and hollows, and even the mud and peat of the salt meadows to make compost heaps. Mr. Seaman, Mr. Chadwick, Mr. John Seguine, and Dr. Taylor, all in that vicinity, are using more or less of it. The latter gentleman has such an abundance that he neglects sea-weed, which his shore furnishes plentifully. Mr. Frost, Mr. Flood and others on the Fresh Kills, have also dug out muck and are using it. It has even been employed by some on the island, without any preparation or mixture, except exposing it to the winter frosts in small heaps, which cause it to crumble into a fine mold.

Thus we find that muck or peat is gradually coming into use, and the farming interest will be greatly promoted by the recommendation of the State Geologists, who have indicated many vast repositories of it in different places, but the small deposits must first be excavated, and in process of time, the larger ones be resorted to.

Again, I repeat that the Geologists in exploring the State, have shown its immense resources, and the incalculable benefits to be derived to the arts from their labors. If these are not appreciated by party men, by mere politicians, they are, and will be, by all considerate persons, and by those who love our country and its republican institutions. Yours, with esteem,

A PRACTICAL FARMER.

Staten Island, Sept. 11, 1844.

TO EXTRACT CHEAT FROM WHEAT.

MESSRS. EDITORS—As much difficulty is frequently experienced in cleaning wheat from cheat, I offer the following plan: Instead of having a riddle, as ordinarily used, in the fan, place a board in the riddle's place; it may be an inch or two narrower than the riddle in width. By this means, the cheat is carried nearly off the screen board, and with the aid of a strong wind, is driven pretty effectually out at the second run of the grain.

The present year I undertook to clean some Mediterranean wheat, which had a pretty large share of cheat in it. By the aid of the above plan, at the second run, it was pronounced by an old and experienced farmer to be clean enough. I believe I might have run it five or six times the ordinary way, without having it as clean. Thus I saved much labor, as well as some time; though it must be let through slowly and regularly, to prevent the falling sheet of wheat from obstructing the passage of the cheat while blowing out, and falling through the fan sieve. This I accomplished by resting the half bushel on my shoulder, and letting the grain fall gently and gradually into the fan hopper, which was aided by the jar of the fan in motion. This last precaution may not be necessary, where hoppers are new and properly constructed; but ours was old, and worn loose at the connecting points.

Chester co., Pa., Aug. 1844. JOHN M. HARLAN.

"NEVER LOSE ANY THING—NEVER FORGET ANY THING."

A distinguished financier and citizen of this State, lately related an anecdote which occurred in early life, which he said afterwards proved of the greatest utility to him, and which may teach a valuable lesson to others. When just commencing in life, he was deputed by an eminent man of business on an errand of considerable importance, and after receiving instructions at length, the business man handed him a paper or instrument, which he was to use in case of a certain contingency not likely to occur. "Here," said he to the young man, "take this paper and hand it to ——— if you should see him, but you must not lose it."

"Very well, I will try not to lose it."

"But you *musn't* lose it."

"Well, I'll *try*, but as I may not need the paper, perhaps I had better not take it, for fear I *might* lose it."

"No!—take the paper, but you MUST NOT LOSE IT!"

He took the paper—and set out on his journey—but the idea that a fixed determination to accomplish the object, would certainly accomplish it, was new to him; the last emphatic words, "*you* MUST NOT *lose it*," continually re-echoed in his ears, and made such an indelible impression on his mind, that throughout a long subsequent life, he proved most effectually the practicability and eminent utility of the injunction, as well as of its counterpart and almost its necessary consequence, "never forget any thing,"—that is, in the transaction of active business.

These two maxims, if thoroughly adopted and carried out by all our farmers, would work a revolution indeed in the appearance of many premises. Instead of tools lost in one place, and forgotten, neglected and spoiled from a year's exposure in another, with the consequent loss of time in hunting, and loss of temper by delay and disappointment,—instead of these disasters, there would be "a place for every thing and every thing in its place;" and confusion no longer usurp the throne of order, neatness and regularity. Whenever an implement is taken from its place for use, the words must be vividly impressed on the mind, "you *must not* lose it—you *must not* forget it!"

And who doubts the possibility of attaining this? Some persons forget, *habitually*, and lose, habitually; but if habit has brought these evils upon them, then it may also remove them; or at least it might have prevented them, if an early determination to the contrary had been adopted. Habit "begins in cobwebs and ends in chains,"—let it then have a right direction at the outset. Be *determined* to do a thing, and you need not fear of success,—ultimately, if not now. The most perfect penman I ever knew, had a distorted and crippled hand—and the most accomplished Grecian orator, when young, was humpbacked, lop-shouldered, and had to talk with pebbles in his mouth to correct his mumbling voice. Sir Isaac Newton said that whatever he had attained was by perseverance and close application, and not by any eminent powers of mind which he possessed. Who then need despair?

A HEARER.

BLASTING ROCK.—Some time since it was stated in some newspaper that the electric battery was applied in igniting the powder in blasting rock, and this was much more safe and expeditious than the old plan. What is the *modus operandi*? for instance the size of the battery and the wire used for a conductor, &c.

MORUS MULTICAULIS.—It has been stated by some, that the morus multicaulis is not adapted to the successful cultivation of the silk worm; that worms fed on it, are not so healthy as those fed on other varieties of the mulberry. Is it so? What variety (from experience,) is now considered best?

Answers to the above inquiries, will confer a favor on one, and no doubt be interesting to many of your subscribers. *Lexington, N. C., Sept.* 2, 1844. C. MOCK.

LIST OF PREMIUMS AWARDED

BY THE N. Y. STATE AG. SOCIETY AT POUGHKEEPSIE.

CATTLE—CLASS I—*Best of any breed.*

Bulls—Best 3 years old, to George Vail, Troy, "Meteor," $20—Best 2 years old, to C. F. Crosby, Watervliet, "Osceola," $15—Best yearling, to Thomas Oliver, Westchester county, "Marius," $10—Best bull calf, to Corning & Sotham, Albany, "Pomaria," $6.

Cows—Best 3 years old, to James Lennox, Poughkeepsie, "Red Lady," $20—Best 2 years old, to E. P. Prentice, Albany. $15—Best yearling, to Duncan Robinson, Fishkill, $10—Best calf, to R. L. Pell, Pelham Farm, $6.

CLASS II—*Durham Cattle.*

Bulls—1st, to George Vail's "Meteor," $15—2d, to D. D. Campbell's "Rotterdam," Schenectady, $10—3d, to R. Donaldson's "Prince Albert," Red Hook, Diploma.

Two years old—1st, to C. F. Crosby's "Osceola," $10—2d, to George Vail's "Symmetry," $5—3d, to Wm. Salisbury's "Sir Peter," Catskill, Diploma.

Yearlings—1st, to Thomas Oliver, Sing-Sing, $10—2d, to J. F. Sheaf, High Cliff, $5—3d, to James Lennox, Diploma.

Bull Calves—1st, to C. N. Bement, Albany, $5—2d, to George Vail, Diploma.

Cows—1st, to J. F. Sheaf, $15—2d, to George Vail's "Victoria," $10—3d, to J. F. Sheaf, Diploma.

Two year old Heifers—1st, to E. P. Prentice's "Nell," $10—2d, to E. P. Prentice's "Esterville," $5—3d, to D. B. Fuller's "Victoria," Hyde Park, Diploma.

Yearlings—1st, to George Dakin, Dutchess county, $10—2d, to D. D. Campbell, $5—3d, to Wm. Kelly, Rhinebeck, Diploma.

Heifer Calves—1st, to George Vail, $5—2d to C. N. Bement, Diploma.

CLASS III—*Hereford Cattle.*

All the premiums in this class were awarded to Messrs Corning & Sotham, Albany, to wit: For 2 years old bull, Edwin, $10—for bull calf, Pomaria, $5—for cows, 1st, to Aston Beauty, $15; 2d, to Victoria, $10; 3d, to Perfection, Diploma—for 2 years old heifer, Mary, $10; for yearling heifers, 1st, to Lilly, $6; to Maggie, vol. Transactions.

CLASS IV—*Devon Cattle.*

To L. F. Allen, Black Rock, for best bull calf, $5.

For best cow, 1st, to D. B. Lent, Poughkeepsie, $15—2d, to L. F. Allen, $10.

CLASS V—*Ayrshire Cattle.*

For best bull, 1st, to Joel Rathbone, Albany, $15—2d, to C. N. Bement, $10.

The Committee also awarded a premium of $15 to Mr. Archibald of Montreal, for his Ayrshire bull, Sir Walter Scott.

For best cow, 1st, to Thomas Ellison, New Windsor, $15—2d, to Joel Rathbone, $10—3d, to Cornelius Dubois, Poughkeepsie, vol. Transactions.

CLASS VI—*Grade Cattle.*

For best 2 years old heifer, to Duncan Robinson, Fishkill, $5—2d and 3d, to J. F. Sheaf, Poughkeepsie, $3 and Diploma.

CLASS VII—*Native Cattle.*

For best cow, 1st, to R. Donaldson, $12—2d, to R. L. Pell, $8—3d, to Z. Pratt, Greene county, vol. Transactions. A vol. of Transactions was awarded to Hezekiah Smith, Greene county, for his Native bull; and a premium of $3 to John G. Parker, Poughkeepsie, for his Native calf

WORKING OXEN AND STEERS.

For best pair, 1st, to Luther Comstock, Oneida, $15—2d, to Isaac Doty, Clinton Hollow, $10—3d, to H. D Grant, Amenia, vol. Transactions—4th, to F. W. Akin, Greenbush, Dip.

Best 3 yoke oxen, 1st, to James S. and Wm. Wadsworth, Geneseo, $15—2d, to D. B. Fuller, Hyde Park, $10.

Best 10 yoke oxen from one town, 1st, to D. B. Fuller, J. W. Wheeler, Elias Butler, Thomas Allen and John Traver, Hyde Park, $20.

Best 3 years old steers, 1st, to Charles Wescott, Fishkill, $15—2d, to J. W. Wheeler, Hyde Park, $10.

Best yearling steers, to Dr. Vandeburgh, Rhinebeck, $10.

FAT CATTLE.

Best pair, 1st, to George Mills, Livingston county, $20—2d, to Thomas Swift, Amenia, $15—3d, to A. M. Underhill, Clinton Hollow, $10—4th, to Duguid & Candee, Onondaga, Diploma.

Best fat ox, 1st, to D. D Campbell, $15—2d, to Duncan Robinson, $10—3d, to Duguid & Candee, vol. Transactions.

Best fat heifer, 1st, to Martinus Calkins, Chenango county, $15—2d, to Walter Wakeman, North East, $10—3d, to Dr. Vandeburgh, vol. Transactions.

HORSES.

Best Stallion over 4 years old, 1st, to Wm. Salisbury, $20—2d, to John Greenfield, Newburgh, $10—3d, to Silas Belding, Amenia, $6 and vol. Transactions—4th, to A J. Skidmore Fishkill, $4 and Diploma.

Best 3 years old Stallion, 1st, to Calvert Canfield, Pleasant Valley, $15—2d, to Jacob Duncan, Union Vale, $10—3d, to Job Sisson, Washington, $6.

The Committee on Stallions made the following special awards: to David B. Haight, Dutchess county, $10; Aaron Bailey, Cherry Valley, $6 and Diploma; Edward Long, Cambridge, $6; to David Long, as groom, $5; and Diplomas to Epenetus How, North Salem; Wm. H. Ludlow, Claverack; C. F. Crosby, John Cooper, Poughkeepsie; Bastion Moore, Columbia county; S. V. R. Ableman and Corning & Sotham, Albany.

Benj. Pettit, Oneida county; L. W. Ten Broeck, Columbio co.; Samuel Verplank, Fishkill.

Best Breeding Mare and Colt, 1st, to Josiah Williams, Poughkeepsie, $20—2d, to Isaac T. Frost, $10—3d, to Thomas Dearin, Poughkeepsie, Diploma. The Committee also awarded $10 to S. C. Roe, and Diplomas to P. Lyon, Washington, and Moses Clark.

Best pair Matched Farm Horses, 1st, to Allen B. Stockholm, Fishkill, $10—2d, to Philip Vanderbelt, Fishkill, vol. Trans.

Best pair Matched Horses, 1st, to Wm. Landon, Albany, $10—2d, to Wm. A. Davis, Poughkeepsie, vol Transactions—3d, to J. P. Beekman, Kinderhook, Diploma.

Best Single Horse, 1st, to De Witt Hasbrouck, Orange county, $10—2d, to Duguid & Candee, vol. Transactions. Volumes of Transactions were also awarded to Anthony Van Bergen, Coxsackie; Samuel Townsend, Orange county, and Benjamin Van Voast.

MULES.

Second best pair, to Nathan Colman, Poughkeepsie, $10.

SHEEP—CLASS I—*Long Wooled.*

Best Buck, 1st, to L. D. Clift, Carmel, $10—2d, to Thomas Dunn, Albany, $5—3d, to Nathaniel Halleck, Milton, Diploma.

Best pen of 3 ewes, 1st, to L. D. Clift, $10—2d, to Edward Halleck, Milton, $5—3d, to Henry Mesier, Fishkill, Diploma.

Best pen of 5 lambs, to Willet Colver, Hyde Park, $5.

CLASS II—*Middle Wooled.*

Best buck, 1st, to Isaac Foster, Hillsdale, $10—2d, to J. McD. McIntyre, Albany, $5—3d, to S. & J. Wait, Orange co., Dip

Best pen of 3 ewes, 1st, to S. & J. Wait, $10—2d, to J. McD. McIntyre, $5—3d, to Edward Halleck, Diploma.

Best pen of 5 lambs, to D. B. Haight, $5.

CLASS III—*Fine Wooled.*

Saxons—Best bucks, 1st, to C. W. Hull, New Lebanon, $10—2d, to Abner Brown, North East, $5—3d, to Samuel H. Church, Vernon, Diploma.

Best pen of 3 ewes, 1st, to Walter Wakeman, North East, $10—2d, to Samuel H. Church, $5—3d, to S. B. Crocker, Vernon, Diploma.

Merinoes—Best buck, 1st, to H. S. Randall, Cortland Viliage, $10—2d, to H. & J. Carpenter, Poughkeepsie, $5.

Best 3 ewes, 1st and 2d, to H. S. Randall, $10 and $5—3d, to H. & I. Carpenter, Poughkeepsie, vol. Transactions.

Best 5 lambs, to Rawson Harmon, Jr. Wheatland, $5.

FAT SHEEP.

Best, to J. McD. McIntyre, $10—2d, to D. W. Elting, New Paltz, $5—3d, to J. C. Haviland, Dutchess co., vol. Trans.

SHEEP FROM OTHER STATES.

Best fine wooled buck, 1st, to Jacob N. Blakeslee, Litchfield county, Conn, Silver Medal—2d, to Stephen Atwood, Litchfield county, Conn., 2 vols. Transactions.

Best 3 fine wooled ewes, to Jacob N. Blakeslee, Conn., Silver Medal.

SWINE.

Best boar, 1st, to Benj. H. Hart, Lagrange, $10—2d, to James Lenox, $5—3d, to C. F. Crosby, Diploma.

Best sow, 1st, to W. A. S. North, Duanesburgh, $10—2d, to W. T. Hulse, Blooming Grove, $5—3d, to Thos. T. Doty, Beekman, Diploma

Best lot of pigs, 1st, to D. B. Lent, $5—2d, to Thos. T. Doty, Diploma.

The Committee commend a boar and sow of Neapolitan breed, offered by C. N. Bement, and a Leicester boar of John Wilkinson.

FARM IMPLEMENTS, &c.

Best Plow, 1st, to Howard Delano, Mottville, Onon. co., $15—2d, to Thomas D. Burrall, Geneva, Shell Wheeled Plow, Silver Medal—3d, to W. U. Chase, Amsterdam, $5—4th, to M. D & T. H. Codding, Rochester, Diploma.

For Gang Plow, to Thomas Wiard, East Avon, $15.

For best Dynamometer, to W. U. Chase, $15—2d, to T. D. Burrall, Geneva, $7—3d, Mr. Seymour, Hartford, Connecticut, Diploma.

Best Farm Wagon, 2d premium to Wm. Cox, Stamford, vol. Transactions.

Best Horse Cart, to John Wilkinson, Union Vale, $5.

Best Horse Rake, 1st, to Gustavus White, Middlefield, $5—2d, to Wm. B. Stoddard, Moravia, vol. Transactions.

Best Grain Cradle, to David Flanders, St. Lawrence co., $3

Best half doz. Hay Forks, to Taylor, Buttolph & Co., West Stockholm, Diploma.

Best Dung Forks, to Taylor, Buttolph & Co., vol. Trans.

Best Harrow, to John Wilkinson, vol. Transactions.

Best Fanning Mill, 1st, to Isaac T. Grant, Schaghticoke, Silver Medal—2d, to David Bryan. North East, vol. Trans.—3d, to E. Dodge, Watertown, Diploma.

Best Threshing Machine, 1st, to J. A. Taplin, Montpelier, Vt., $15—2d, to S. S. Allen, Poughkeepsie, vol. Transactions 3d, to A. Wheeler & Brothers, Chatham, Diploma.

Best Straw Cutter, 1st, to Wm. Hovey, Worcester, Mass., Silver Medal—2d, to Stephen Armstrong, Poughkeepsie, vol. Transactions—3d, to Thos. P. Thorn, Fishkill. Diploma.

Best Cheese Press, to Egbert Dodge, Watertown, $3.

Best Field Roller, to T. D. Burrall, Diploma.

Best Corn Sheller, to Francis N. Smith, Kinderhook, Dip.

Best Bee Palace, to M. O. Remmington, Cayuga co., Dip.

Best Bee Hive, to E. Townley, New York, $5.

Best Harvesting Machine, to George Easterly, Heart Prairie, Wiskonsan, Diploma.

Best Model of Hay Press, 1st, to Dedrick & Brothers, Claver

ack, vol. Transactions—2d, to J. H. P. G. Yelverton, Poughkeepsie, Diploma.

Best Rut Shears, to B. Benedict, Geneseo, Diploma.

Best Washing Machine, to Joseph C. Rich, Penfield, Dip.

Best Clover Machine, to Wheeler & Brothers, Columbia co., vol. Transactions.

Best Clover Gatherer, to Benj. N. Hart, Diploma.

Best Apple Drier, to Gustavus White, Diploma.

Best Churn, to David Dakin, Pine Plains, Diploma.

Best Cultivator Plow, to B. Langdon, Troy, $5

Best Stump Machine, to R. H. Hall, Owego, Silver Medal.

DAIRY.

Best Butter, 1st, to I. Martin, Ulster co., $15—2d, to Hester Ann Travers, Troy, Silver Medal—3d, to Theodore Allen, Hyde Park, Silver Medal—4th, to Nathan Colman, Dutch. co., Silver Medal—5th, to Caroline S. Cheeseman, Dutch. co., Silver Medal—6th, to John Lester, Lagrange, Silver Medal.

Best Cheese, 1st, to H. P. & G. Allen, Duanesburgh, $15—2d, to A. L. Fish, Litchfield, Silver Medal.

MAPLE SUGAR.

Best, to Joel Woodworth, Watertown, $15—2d, to Wm. E. White, Walton, $10—3d, to Alfred Fitch, Riga, Diploma.

SILK.

Best Manufactured Silk. 1st, to George Gents, agent for Murry & Co., Paterson, N J. $20—2d, to Clark Avery, Madison co., 2 lbs. sewing, $10—3d, to Miss Margaretta Hutchinson, Long Island, $5—4th. to Wm. Thomas, Col. co., Diploma.

Best Reeled Silk, 1st, to Ruth S. Carey, Saratoga co., $10—2d, to Ira Howland, Pleasant Valley, $5—3d, to C. R. Cable, Constantia, Diploma.

Best Cocoons, 1st, to Ira Howland, $10—2d, to Palmer Cook, Red Hook, $5—3d, to J. C. Church, Poughkeepsie, Diploma.

DOMESTIC MANUFACTURES.

Best Woolen Carpets, 1st, 2d and 3d, to C. M. Pelton, Poughkeepsie, $5, $4 and $3.

Best Rag Carpets, 1st, to Mrs. C. W. Tower, Amenia, $3—2d, to Mrs. James Ryan, New Paltz, $2—3d, to J. Palmer, Poughkeepsie, $1.

Best Woolen Cloth, 1st, to Scofield, Capron & Co., Walden, $5—2d, to J. Bowen, Pleasant Valley, $4—3d, to Titus, Sweet & Co. Dutch. co. $3.

Best Carpet Coverlet, 1st, to Philip P. Knapp, Beekman, $4—2d, to Philip Dubois, New Paltz, $3—3d, to Israel Hall, Fishkill, $2.

Best Woolen Blanket, to Norman Culver, Arcadia, $5.

Best Linen Sewing Thread, 1st, to Peter Crispel, Jr. Ulster co., $2—2d, to Norman Culver, $1.

Best Linen Diaper, 1st and 2d to Mrs. Russell, Lebanon Springs. $5 and $4—3d to Peter Crispel, Jr. $3.

Best Linen, 1st to Mrs. Russell, $5—2d to Peter Crispel, Jr. $4—3d to D. W. Elting, Ulster co $3.

Best Linen Knit Stockings, 1st to Mrs. Freelove Arnold, Quaker Hill, $2—2d to Peter Crispel, Jr. $1—3d to Mrs. Vincent M. Townsend, Diploma.

Best Cotton Knit Stockings, 1st 2d and 3d to Mrs. Charles Thompson, Poughkeepsie, $2, $1 and Diploma.

Best Woolen Knit Stockings, 1st to S. Bassett, North East, $2—2d and 3d to Mrs. Daniel Washburn, Union Vale, $1 and Diploma.

Best Tow Cloth. 1st to Peter Crispel, $1.

Best Hearth Rugs, 1st to Chas. M. Pelton, Poughkeepsie, $5—2d to Nancy Hull, Lexington Heights, $4—3d to Lydia Peck, Lexington Heights, $3.

Best Flannel, 1st to Mrs. G. W. Henry, Lowville, $5.

VEGETABLES.

Best Celery, to Robert Kelly, Rhinebeck, $2.

Best Cauliflower, to Samuel Curry, Poughkeepsie, $2.

Best Turneps, to Michael Kane, gardener of John A. De Groff, Hyde Park, $1.

Best Carrots, to John B. James, Rhinebeck, $1.

Best Beets, to R. L. Pell, $1.

Best Parsneps. to W. Harrocks, Hyde Park, $1.

Best Cabbage, to R. L. Pell, $1.

Best Tomatoes, to R. L. Pell, $1.

Best Egg Plants. to John B. James, $1.

Best Onions, to Joseph T. Adriance, Poughkeepsie, $1.

Best Lima Beans, to Joseph T. Adriance, $1.

Best Double Parsley, to Michael Kane, $1.

Best Squashes, to R. L. Pell, $1.

Largest Pumpkin, to John Townsend. Hyde Park, $1.

Best Seed Corn, to J. F. Osborn, Port Byron, $1

Best Table Potatoes, 1st to W. Horrocks, $2—2d to Samuel Curry, $1.

Diplomas were awarded for Celery to Samuel Mitchell, Poughkeepsie—to W. Harrock for Turneps and for fine specimen of Green Peas—to Michael Kane, for Orange Carrots—to J. F. Adriance, Poughkeepsie, for White Carrots and for best collection of various kinds of beets—to Nathan Colman, for beautiful specimens of White Onions—to N. Shephard, for Lima Beans—to D. B. Fuller, for 8 varieties of Squashes—to A. J. Downing, for Seedling Rhubarb—to Robert Kelly, for Vegetable Oyster.

Volumes of Transactions were awarded to Joseph F. Adriance for Cuba Pumpkins, 18 from one seed, weighing 776½ lbs—to Hamilton Morrison, Montgomery, for 12 varieties of Potatoes—to Mrs. Verplanck, Fishkill Landing, for several fine heads of Lettuce—to Thomas Addis Emmet, New-York, for Okra and Cucumbers.

FRUIT.

For greatest variety of Table Apples, 1st to A. J. Downing & Co. Newburgh, $5—2d to John R. Comstock, Washington, $3—3d to J. F. Osborn, Port Byron, vol. Transactions.

For 12 best Table Apples, to R. L. Pell, Pelham, $3.

For greatest variety of Table Pears, 1st to A. J. Downing & Co $3—2d to Wm. Reid, Murray Hill, vol. Transactions.

Volumes of Transactions were awarded to A. J. Downing & Co. for greatest variety of Winter Pears—to Alex. H. Smith, Hyde Park, for best 12 Quinces—to Mrs. A Thorpe, Schodack, for best 12 Peaches—to A. J. Downing & Co. for best 24 Plums—to W. North, Poughkeepsie, for best 6 bunches Native Grapes—to Robert Donaldson, Blythebood, for best 6 bunches Foreign Grapes.

A Diploma and $1 was awarded to Moses Humphrey, Poughkeepsie, a colored man, 80 years old, for fine specimens of Grapes.

FLOWERS.

For greatest variety, 1st to Miss Verplanck, Fishkill, $5—2d to W. Harrock, $3.

For Floral Ornaments, 1st to Wm. Prince & Co Flushing, $5—2d to Miss Garretson, Rhinebeck, $3.

For Dahlias, 1st to J. M. Thorburn & Co. New-York, $5—2d to J. B. James, Rhinebeck, $3—3d to Messrs Piner. Flushing, vol. Transactions—4th to Mr. Swift, Poughkeepsie, Diploma. Discretionary—$3 to Mr. Van Waggoner, Poughkeepsie, and $1 to Samuel Mitchell, Poughkeepsie.

For Green House Plants, 1st to John N. Stuveysant, Hyde Park, vol. Transactions—2d to J. Charran, Poughkeepsie, Dip.

PLOWING MATCH.

First premium to Wm. H. Warrall, Poughkeepsie, $15—2d to Peter F. Procius, Kinderhook, $12—3d to Valentine Halleck, $10—4th to E. B. Smith, Poughkeepsie, $6—5th to Elias Westervelt, Poughkeepsie, Diploma.

The Committee awarded prizes of $3 each, to John Day, of Lithgow, and James East of Poughkeepsie as the best plowmen.

IMPROVED AGRICULTURAL IMPLEMENTS.

Silver Medals were awarded to George Geddes, Onondaga co. for an improved Harrow—to Roswell H. Hall, Owego, for a Stump Extractor—to Wm. Hovey, Worcester, Mass. for his Straw Cutter—to I. T. Grant, Schaghticoke, for a Fanning Mill.

DISCRETIONARY PREMIUMS.

Needle Work—To Mrs. Tuckerman, 70 years old, for a Counterpane, $2—to De Witt C. Thomas for superior woolen Mittens, $2—to J. G. Wood, Gloverville, for a specimen of buck skin Mittens and ladies' Moccasins, $2—to Mrs. Polly B. Wescott, Greenfield, for Counterpane, $2—to Miss Johanna Hurley, Poughkeepsie, for a specimen of embroidery needle work, $2—and Diplomas to Mrs. J. Reynolds for an embroidered Table Cover; to Miss Eliza R. Davies for raised Worsted Work; to Miss Frances M. Kirby, Watertown, for a beautiful Work Bag; to Miss Akin, Dutchess co. for an elegant specimen of needle work.

Flour—To E. S. Beach & Co. Akron Mills, Ohio, for a *good* barrel of flour, Diploma—to Philip Garbutt, Wheatland, N. Y. for a *better* barrel of flour $3—to John Willliams, Rochester for the *best* barrel of flour $5.

Diplomas were awarded to Miss McDonald, Poughkeepsie for a beautiful specimen of Wax Imitation of Fruit; to Comstock and Johnson of Rome, for a splendid assortment of Garden Tools; to Lewis Wetham, Poughkeepsie, for two elegaet Piano Fortes; to Maurice Cunningham, gardener of R. L. Pell, Esq.; to Charles Roome, New-York, for a specimen of the application of Coal Tar as a paint; to James Vail, Poughkeepsie, for an Artificial Grotto; to Miss Mary Sherwood, Fishkill, for one Divan and three Gilt Frames; to John M. Ketchum, for 3 slabs of fine white and clouded Marble from the quarries of Dover, Dut. co.; to Gifford and Sherman, Poughkeepsie, for a specimen of ground Dye-wood in jars; to Jared Gray, Poughkeepsie, for beautiful specimens of Hair Work; to Elisha M. Haley, Poughkeepsie, for a handsome specimen of fancy Brick; to Peter Crispell jr., for a specimen of Flax; to Augustus Thayer, Malden Bridge, for a Columbian Pump; Peter Van Vlict, Newburgh, for a specimen of Cooperage; to Hiram Pierce, Cooperstown, for a beautiful specimen of Penmanship; to Gen. R. Harmon, Jr., Wheatland, for 35 varieties of Wheat in the ear; to John R. Stuyvesant, Hyde Park, for 3 Top Knot Fowls, remarkable for laying eggs the whole year without intermission; to B. J. Hayes, Hastings, for a specimen of Egyptian Wheat in the ear; to Russell Comstock, Washington, for Seedling Apples and Pears; to Noah Gridley, Amenia, for two pairs Sad Irons; to Abram Fonda, Poughkeepsie, for samples of Tooth Wash, Tooth Powder and Tooth Paste; to Anson Barhydt, Col. co. for 3 models of Bee Hives and Bee House.

Manufactures—Diplomas were awarded to the Middlesex Co Lowell, Mass. for a splendid assortment of Broadcloths, Cassimeres and fancy Woolens, J. Gleason, agent; to Archibald Winter, Roundout, for a specimen of Shoes made by a machine from one piece of leather without a seam; to Z. Pratt & Co Prattsville, for 4 sides of Spanish leather, sweated and tanned in 5 months in hemlock, in the common mode; to Watson and Dwight, Windham, for 4 sides of slaughtered Sole Leather, tanned in hemlock in 4½ months, in the usual mode; to Wm. Wilsen, Poughkeepsie, for a Ledger in elegant Russia binding; to Joseph Lanbach, Middletown, Penn. for an Iron Revolving Hearth; to John C. Chambers, Poughkeepsie, for a beautiful Row Boat; to G. M. Veile, Poughkeepsie, for a Hat; to Henry D. Myers, Poughkeepsie. for a Pump and Block; to Wm. Shiel: Poughkeepsie, for a fine specimen of Mahogany Grained Doors, to R. G. Holmes, Poughkeepsie, for a beautiful set of Artificial Teeth; to Bernard Skinner, Poughkeepsie, for a beautiful specimen of Buck skin; to Granger and Todd, Oneida co. for a spe

..imen of Glass Ware; to Thomas Prosser, New-York, for a beautiful variety of Porcelain Buttons, to Mosely, Howard & Co. Poughkeepsie, for specimens of Solid Head Pins; to Fairchild, Pelton & Co. Poughkeepsie, for specimens of the same; to M Morse, Rochester, for an elegantly bound Blank Ledger; to John Eisel, Poughkeepsie, for a beautiful specimen of Boots; to Alex. Wright, Poughkeepsie, for a Rifle; to Alex. Ross for American manufactured Brussels Carpeting.

Carriages and Sleighs—Diplomas, to John H. Wood, Poughkeepsie, for Carriages and Sleigh; to John W. Whitney, Poughkeepsie, for a single horse Carriage; to Harvey Palmer, Poughkeepsie, for a single horse Pleasure Wagon.

Stoves—To Wager & Dater, Troy, for 4 Air Tight Stoves, $3; to Smith, Lockwood & Co. Troy, for 4 family and 1 hotel Stove for coal or wood, $5, and Diplomas were awarded to J. T. McCarty & Co. Rhinebeck, for one stove; to Barnard & Heermance, Poughkeepsie, for 2 cooking stoves; to Low & Bradley, Poughkeepsie, for 2 stoves; to George Smithson, Poughkeepsie, for a Cooking Closet; to W. O Jenks, Albany, for a Parlor Coal Stove; to James Robb, Peekskill, for a cooking stove; to R. D. C. Stoughtenburgh, Poughkeepsie, for a Parlor Wood Stove and a Parlor Coal Radiator; to Atwood and Cole, Troy, for 4 cooking stoves; J. C. Heermance, Schenectady, for 2 cooking stoves.

Smut Machines—To Wm. Delaney, Canterbury, $5; to W. G. Borland, Little Falls, $3; to E. F. Cushman, Troy, $3.

A premium of $2 was awarded to John Wilkinson, Union Vale, for a specimen of Chrystalized Maple Sugar; to Andrew Meneely, West Troy, for two Church Bells, weighing 65[illegible] 1525 lbs., with improved cast iron yokes, and 1 gilded Steamboat Bell weighing 172 lbs., of beautiful tone and finish; to John Dalley, Troy, for a fine specimen of cut Tobacco, $2; to Thomas N. Smith, New Paltz, for a fine specimen of Harness and Top Leather, $3; to Wm. H. Sleight, Hyde Park, for a Stove Drum, and beautiful specimens of tin Coffee Urns and Tea Pots, $2; to G. W. I. Brownson, Amsterdam, 3 kinds of Brooms and Brushes, $3; to Dedrick and Brothers, Claverack, for a Fire Escape, $3; to Wm. Roze, Philadelphia, for a hoof splitting machine, very ingenious, $5; to 6 pupils of the Institution for the Blind, New-York, for 8 specimens of Willow Work from American willows, presented by J. R. Horn, $6; to John C. Hall, Fallsburgh, for a sample of beautiful Timothy Seed, $3.

There was a most beautiful *carpet* sent by Mrs. E. Minor, of Canton, St. Lawrence county, which from a misdirection, did not arrive in time for the Fair. This is a matter of regret, not less so to others than to the lady to whom it belongs. It was retained for a few days and exhibited at the hall of the State Agricultural Society in this city, and was, by all who saw it, pronounced a most superb article. It was wrought by Mrs. Minor during her hours of leisure from household duties, through a period of *eight years*. The border consists of twenty-four groups of flowers, wrought with most exquisite taste and precision, yet all different in their character. The center consists of groups of cattle, sheep, with their shepherds, and other rural scenes—representations of buffalo and moose-hunting—animals and plants of tropical countries, where are shown the camel-leopard, lion, lioness and whelps, &c.—in another part were groups of birds, domestic and wild pigeons, pheasants, &c. Altogether it may be considered a splendid specimen of the ingenuity, industry and fine taste of the manufacturer.

CULTIVATION OF FRUIT—No. X.

THE APRICOT.

It is remarkable that a fruit of such excellence as the apricot, and ripening as it does from one to two months before the best early peaches, should be so little known. A year or two since, being in company with three persons from different parts of the country, one of whom was a distinguished bookseller, another a well known public lecturer, and a third an eminent clergyman, I handed them a few specimens of ripe apricots;—the first exclaimed, "This is a truly excellent fruit, and the first of the kind I ever tasted." The two others made the same remark—they had never seen the fruit before, although traveling yearly thousands of miles, and visiting all parts of the country. Similar remarks have often been made by others.

The apricot, in its natural character, is more nearly allied to the plum than the peach, resembling the former in its leaf, and in the stone of the fruit, but downy like the latter, and the finer varieties partaking largely of its flavor and excellence.

The apricot is budded on seedling apricots, and on peach and plum stocks. The plum stocks are preferred; but the great superiority they possess over peach stocks, so often ascribed to them by writers, we have not found by experience. They have not afforded protection from the worm, as that insect, not to be thwarted, will penetrate the bark above the point of junction between the bud and stock. In one case, an apricot, grafted three feet from the ground, into a plum tree, was destroyed, the worm entering at that distance from the ground. Examination proved it to be the same insect that attacks the bark at the roots.

The *soil* should be deep and dry. Last winter the writer lost a large number from their standing on a wet subsoil, though the surface was dry. Their growth is about the same as that of the more vigorous varieties of the plum, so that when fully grown they need about twenty feet square of ground for each tree.

This fruit appears to be about equal in hardiness to the earlier varieties of the peach, and escapes destruction by cold when the latter is not killed. It is however, preeminently liable to the attacks of the Curculio, and the usual destruction of the young crop by this insect often leads to the erroneous opinion that it is not adapted to our climate. The means for destroying the Curculio, mentioned in former numbers, when vigorously and thoroughly applied, have insured abundant and regular crops.

Among the varieties, the *Peach* and *Moorpark* (considered by many as identical) stand first on the list. The *Musk* is also very fine. The *Breda*, though inferior in quality, is hardy, vigorous, and a great and constant bearer. The *Black* apricot, a different species, is perfectly hardy in our severest winters, and though second-rate in quality, is an abundant bearer, and well worthy of cultivation.

J. J. T.

IMPROVED STOCK.

THE subscriber has now on hand and will sell, at fair and reasonable rates, several Durham cattle, consisting of cows, heifers and calves; also two bulls, a cross of the Durham and Ayrshire stock.

SOUTH DOWN SHEEP.—Two yearling bucks, several buck lambs and 16 ewes from 3 to 4 years old.

All letters, (post paid,) will be punctually attended to. Address

C. N. BEMENT,

September 1, 1844. *American Hotel, Albany.*

FINE FARMS FOR SALE.

THOSE very superior Farms situated near Galway Corners, in the county of Saratoga, collectively known as the Ear Stimson Farm, will be sold cheap and on terms most accommodating to the purchasers as to credit. The property consists o about 340 acres, is so situated as to be conveniently divided into three or four farms, all having the necessary buildings, and will be sold together or in parcels, to suit purchasers. Each farm is properly divided into pasture, tilled and wood land, and is in the highest state of cultivation, fenced in the best manner and with the most durable materials. The property comprises a mong other buildings, a large and convenient hotel, which is favorite resort of families in the summer on account of the superior healthiness and beauty of the country. The farming buildings of all kinds are most extensive and convenient for al the purposes of agriculture and the raising of stock. The premises also include a country store, a most eligible location fo a country merchant, having been occupied as such for abou forty years. It is within two hours drive of Ballston, Saratoga and Schenectady. The farm is well known among leading agriculturists, and in the agricultural periodicals, as the Pattern Farm. For terms, &c., apply to J. OAKLEY,

Oct. 1.—tf. No. 75 Nassau street, New-York.

FIELD SEED STORE.

THE subscriber continues to keep constantly on hand at his long established Seed Store, a supply of the best quality and kinds of Field Seeds, viz:

Red Clover, of the large and small growth,
Timothy, Red Top, or *Herd's Grass, Orchard Grass, Lucerne*, or *French Clover, White Clover, Trefoil, Kentucky Blue Grass*, &c. &c.

Also, the different varieties of Wheat, as White Flint, Red Chaff, Mediterranean, and English—for sale in lots to suit purchasers at moderate prices, by ISRAEL RUSSELL,

Feb. 1, 1844.—mar. oct. 26 Front-street, New-York

FOR SALE.

15 SAXONY BUCKS, raised upon the farm of the late Elam Tilden, can be had at reasonable prices, by applying to Col. Tanner, on the premises. M. Y. TILDEN, P. M.
New Lebanon, Columbia Co. N. Y. Sept. 7, 1844—1t.*

IMPORTED AYRSHIRE CATTLE.

THE subscriber offers for sale the imported Ayrshire *Cow and Bull*, lately exhibited at the State Fair, both of which received a premium. Also, a bull calf 7 weeks old, and a yearling bull, both out of the above. Also, a very superior Durham bull calf, 6 months old.
Albany, Sept. 26, 1844. JOEL RATHBONE.

FRUIT TREES.

THE subscribers would respectfully call the attention of the public to their assortment of FRUIT TREES. They are enabled this fall to offer a choice collection of many of the most esteemed varieties of Apples, Pears, Cherries, Peaches, Plums, &c. The assortment of trees having been considerably increased, persons desirous of obtaining articles in the nursery line, will find it worth while to examine the collection previous to purchasing elsewhere. All of which will be offered at very reasonable prices for CASH.

N. B. All articles intended for distant transportation will be carefully packed at the expense of the purchaser, and delivered free of cartage to any part of the city.

WILSON, THORBURN & TELLER.

☞ Orders sent to William Thorburn, Seedsman, Albany, will receive prompt attention.
Albany, Oct. 1, 1844—2t.

BUFFALO NURSERY AND HORTICULTURAL GARDEN.

THIS establishment is now somewhat extensive; from 25,000 to 45,000 trees are engrafted or inoculated each year, and these too, mostly from bearing trees, embracing nearly all of the most choice and leading varieties of the Apple, Pear, Peach, Plum, Cherry, Quince, Nectarine, Apricot, Grape, Gooseberry, Raspberry Strawberry, &c. Also, a large stock of ornamental trees, flowering shrubs, and green-house plants.

The new descriptive Catalogue, recently published, will be forwarded to every post-paid applicant. This Catalogue gives in detail, the name, color, form, size, &c. of the various kinds of fruits cultivated at the establishment, together with ample descriptions of ornamental trees, shrubs, plants, roses, &c.

Trees thrifty and fine; prices moderate. Orders promptly attended to. Trees packed in superior order. B. HODGE.
Buffalo, Sept. 20, 1844—2t.*

NORMAN HORSES FOR SALE.

THE undersigned, having relinquished farming, offers for sale his entire stock of Norman horses, twelve in number: imported, and their descendants. As he proposes to exhibit his stallion 'Diligence,' and two of his colts, broken to harness, at the Fair of the American Institute in the city of New-York, on Wednesday, the 16th of October next, and offer them for sale on Friday, the 18th, he deems it unnecessary to enter into particulars, as he will be present to answer enquiries. He will merely refer to pages 172 and 193 of the Cultivator for 1842, the American Agriculturist, page 209, for 1844, the New-York Central Farmer for March, 1844, and the Farmer's Cabinet of Philadelphia, vol. VI. No. 9, for information in regard to his importations of these horses, their uses, &c. The balance of the stock, consisting of 1 stallion and 2 mares, imported, and 3 stud-colts and 3 mare-colts, their progeny, will be held at private sale at Moorestown, in the county of Burlington, New Jersey, 9 miles from Philadelphia, by
October 1—1t. EDWARD HARRIS.

TO FARMERS.

THE undersigned, having succeeded L. Bostwick & Co., in their business, will continue to manufacture and vend the "Warren's Improved Horse Power and Threshing Machines," to order.

Being now so completely perfected, they prove from experience, wherever correctly known, as now made, to be preferred before all others at any thing like *their low price*, which brings them within the ability of every farmer. And if "time is money," and "economy is wealth," no prudent farmer who raises even a small quantity of grain, will do without them.

Every satisfaction in regard to them, can be given at the office of the subscriber.

Prices of the Machines, as follows—viz: a sett of one horse machines, for only $50 and $60—two horse, $75—four horse, $110.

H. BARTLETT,
Successor to L. Bostwick & Co., 146, Front-st., New-York.

N. B. The subscribers take this opportunity with pleasure, to recommend Wm. Bartlett to the full confidence of all who may favor him with their orders. L. BOSTWICK & Co.
October 1—1t.

LINNÆAN BOTANIC GARDEN AND NURSERY,

LATE PRINCE'S.

Flushing, L. I., near New-York.

THE NEW DESCRIPTIVE and UNRIVALLED CATALOGUE, not only of FRUIT, but also of ORNAMENTAL TREES, SHRUBS and PLANTS, cultivated and for sale, *at reduced prices*, at this ancient and celebrated Nursery, (*the* IDENTICAL *premises known as* PRINCE'S, *and by the above title for nearly fifty years.*)

☞ WITH DIRECTIONS FOR THEIR CULTURE, may be had *gratis* on application by mail, *post paid*, to the New Proprietors, who will endeavor to merit the confidence and patronage of the public, by integrity and liberality in dealing, and moderation in charges. WINTER & Co., Proprietors.
Flushing, August 31, 1844—2t.*

STRAWBERRIES, &c.

WM. R. PRINCE & Co., Flushing, offer for sale, all the forty-eight varieties described and priced very low, in their Catalogue of 1843-4, 33d edition, among which are Swainstone, Garestone, British Queen, Victoria, Black Roseberry, Hovey's Seedling, Prince Albert, Ross Phoenix, Bishop's Orange, Myatt's Pine & Eliza, Melon, Keen's Seedling, Elton, Southborough, Downton, Warren's Seedling, Black and Prolific and Green Hautbois, Old Scarlet, Large Early Scarlet, Red and White Wood, and Red and White running and Bush Alpine, &c. Also, these additional new varieties, Crimson Cone, Bishop's Wick, Coul, late Scarlet, Turner's Pine, at $2 per dozen.

Orders not less than $5, enclosing cash, will meet prompt attention. 500 Fastolf Raspberries, very large fruit, and very strong growth, and all other choice varieties. From now till November, the strawberries can be planted.

Prince's Lin. Garden and Nurseries, Flushing, Aug. 9, 1844—2t.

MOUNT HOPE GARDEN AND NURSERIES,

ROCHESTER, N. Y.

THE proprietors of this establishment, respectfully announce to the public, that their present stock of *Fruit and Ornamental Trees, Shrubs, Plants*, &c. which they offer for sale the coming fall, is very large and fine. The collection of the various fruits, for the garden and orchard, comprises the most popular and esteemed varieties known in Europe or America. The trees are handsome, thrifty and of the most suitable size and age for transplanting, and being propagated by the proprietors themselves with the most scrupulous care, either from bearing trees in their own grounds, or from others of undoubted genuineness, and being in every other respect, until they are sent from the nursery, under their *immediate personal supervision*, they can be confidently recommended to the most exact and scrutinizing cultivators.

The collection of fruits includes 1,000 Pear trees of the best varieties, selected in one of the best fruit nursery's in France, last spring, by one of the proprietors. They are grown on Quince stocks for dwarf pyramids, &c. and are now in a bearing state.

Also, 3,000 trees of the valuable native Apple, the "Northern Spy," one of the best keeping varieties cultivated.

The stock of Ornamental Trees, Shrubs, Roses, &c. is very large, and will be furnished at very moderate prices; where quantities are wanted for ornamenting public grounds, a liberal discount will be made. The collection of Roses includes 1,000 standards, 4 to 6 feet high, of the finest varieties of Province, Moss, Chinese and Noisette Monthly, Tea scented, &c. A large assortment of Dutch bulbous roots will be received from Holland in September, and furnished to amateurs, gardeners and agents on very liberal terms.

It is expected that all orders coming from persons unknown to the proprietors, will be accompanied by a remittance, or that some responsible reference will be given Priced Catalogues will be furnished gratis to all who apply *post paid*. Address
Rochester, N. Y. Sept. 1844—2t. ELLWANGER & BARRY.

P. S. 50,000 seedling apple stocks 2 years old, will be sold at $6 to $10 per 1,000, if application be made immediately. E. & B.

GREAT SALE OF ELECTORAL SAXON SHEEP.

THE undersigned will sell at vendue the two flocks of *Pure Electoral Saxon Sheep*, belonging to the estate of the late Henry D. Grove, as follows:

1. That at Grainger, Medina co., Ohio, consisting of about 400 sheep, on the farm now occupied by them, on the 30th of *September next.*

2. The home flock, at his late residence in Hoosick, Rensselaer county, N. Y., consisting of about 350 sheep, on the 15th of *October next.*

A rare opportunity is offered to those who may be anxious to improve the quality of their flocks. The following is the opinion of the distinguished manufacturer who has usually purchased Mr. Grove's wool, of the character of these flocks:

"The purest blood in this country was introduced by the late Mr. Grove in his own flocks, the wool from which I have been familiar with since their importation in 1827. In point of fineness and admirable felting qualities, this wool is unsurpassed by any flock in this country, and the fleeces average about half a pound each more than any other I am acquainted with of equal fineness. SAM'L LAWRENCE.
Lowel, April 9, 1844."

Terms of sale, cash.—Reference, Sam'l Lawrence, or either of the subscribers.
Buskirk's Bridge, April 20, 1844.

ELIZA W. GROVE,
W. JOSLIN,
my1.—5t. S. A. COOK.

SUPERIOR FARMS FOR SALE.

TWO superior productive farms in Rensselaer county, 2 miles from Hoosic Falls. The farms are about one hundred acres each, and so situated as to be conveniently worked as two or one farm: each having the necessary buildings, and being judiciously divided into pasture and tilled land, all recently fenced with entire new materials in the most durable manner. The land is all of the first quality, and its present state of cultivation would bear a good comparison with any land in the county. These Farms will be sold together or separate, on terms most accommodating as to price and credit. Apply to
Lansingburgh, July 16, 1844. ALEXANDER WALSH

DEVON CATTLE.

HAVING had frequent enquiries last season for Devonshire Cattle, I now have the satisfaction to state, that I can accommodate those who wish, with some good Calves, Yearlings or Two-year-olds, Bulls or Heifers. E. P. BECK.
Sheldon, Wyoming Co., July 1844.—2t.